

# ATARI ST USER

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**STWorld**

## REVIEWED

- 4096 colours
- Calligrapher Jr.

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- Supertest: Which education software gets top marks?
- Buyer's guide: Software to take seriously

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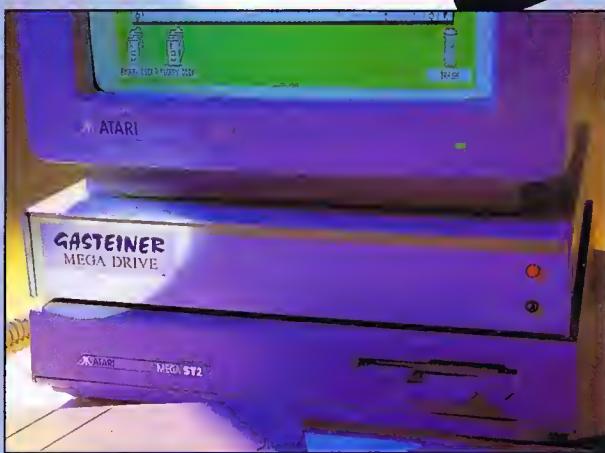
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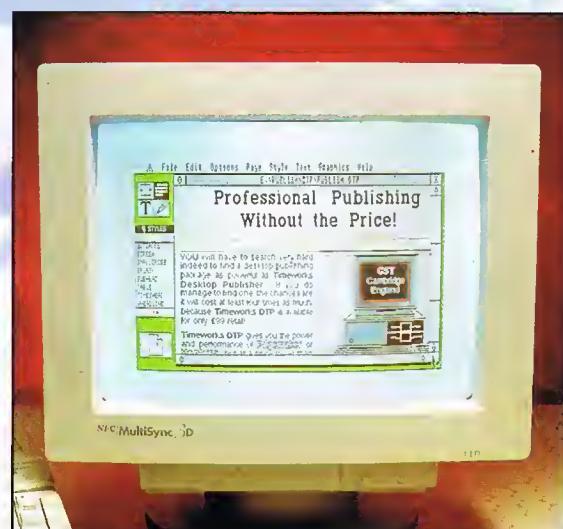
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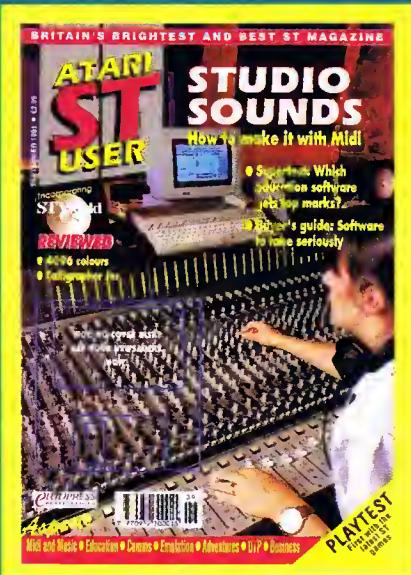
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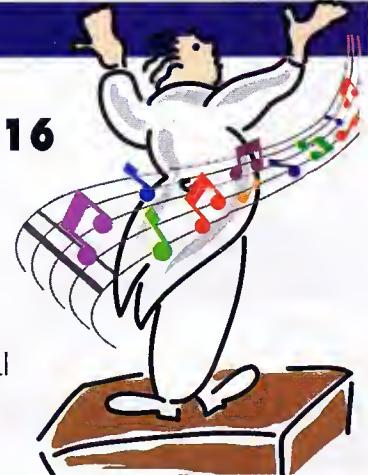
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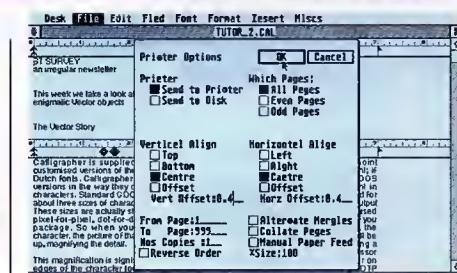
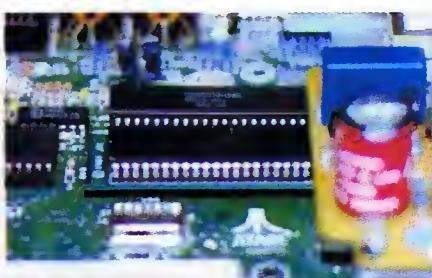
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Seventeen pages packed with the latest games reviews, news and cheats to keep you fully tuned into what's happening on the leisure side of the ST. We have reviews of Cybercon, Midwinter, Billiards 2, Prehistoric, Atomino, Base Ball and more, plus Trade Secrets, news, previews and Playtest Extra

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Don't miss the chance to get your hands on the new colour upgrade board for the ST and a copy of the ultimate ST art package, Deluxe Paint

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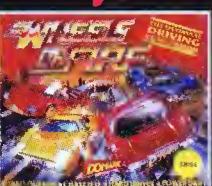
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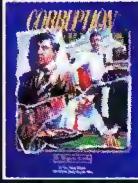
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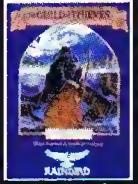
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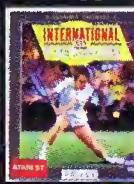
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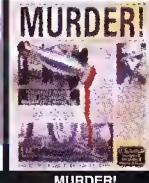
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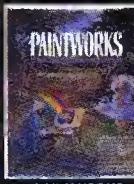
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DRILLER	6.99
DUNGEON MASTER	6.99
DYNASTY WARS	6.99
E-MOTION	6.99
ELITE	7.49
ELVIRA - MISTRESS OF THE DARK	20.99
ENCHANTER (BUDGET)	7.49
ENDER OF THE CROWN	7.49
DEJA VU 2	7.49
DELUXE PAINT	39.99
DEMONIAK	10.99
DEUTEROUS	17.49
DEVPAK V.2 (ASSEMBLER)	49.99
DGBASE (RELATIONAL DATABASE)	32.99
EGOCIDE (SPREADSHEET)	2.99
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DUNGEON MASTER	6.99
DYNASTY WARS	6.99
E-MOTION	6.99

# STE to "blow away" Amiga

ATARI boss Sam Tramiel has warned rival firm Commodore that he'll "blow them away" in a new war to get the STE back on course as the number one games playing computer, and promised four new ST-based models for next year.

In an interview with Europress at Chicago he admitted that the Commodore Amiga is currently seen more as a games playing machine and the ST as a computer for serious applications, but the two were now set to go "head to head".

Tramiel said that while both computers have their pros and cons, and are basically equal machines, the STE could look forward to an exciting 1992, echoing

comments made by UK chairman Bob Gleadow last month.

He said next year's CeBit Show in Hanover will be the launching ground for many new hardware products. He refused to give details of the new machines although one could be the ST fitted with a PC emulator which *Atari ST User* discovered last month.

The remarks from the States do not tie in with the new marketing strategy in the UK. For the last

year Atari UK have been trying to reposition the ST away from its traditional games playing image and more as a computer capable of many tasks.

However, a spokesman for Atari UK said the firm would continue to support the leisure market with their special bundles such as Discovery Xtra, which has just seen a price rise.

The firm says that as a result of a strong dollar they had been forced to increase the price by £30 and the situation will be reviewed at the end of the summer.

The entry-level ST pack now sells for £329.99 even after the increase it is still much cheaper than the Amiga.



**After just over a year at Atari, Peter Staddon has resigned**

## STADDON QUILTS ATARI

JUST as Atari have seen the ST's fortune's lift, marketing manager Peter Staddon has shocked the industry with his decision to quit.

Formerly at Reckitt and Colman, Staddon worked at Atari UK for little over a year and says he decided to move because he received a better offer from RMT a computer supply firm.

Atari spokesman Peter Walker told *Atari ST User* that the manufacturer does not have a policy of matching offers from other companies, but regretted Staddon's decision.

"Peter has been credited with successfully repositioning the ST in the market place", said Walker.

During his year at Atari he has been behind the promotion of several new bundles including the Family Curriculum Pack and Discovery Xtra.

No replacement is planned before September.

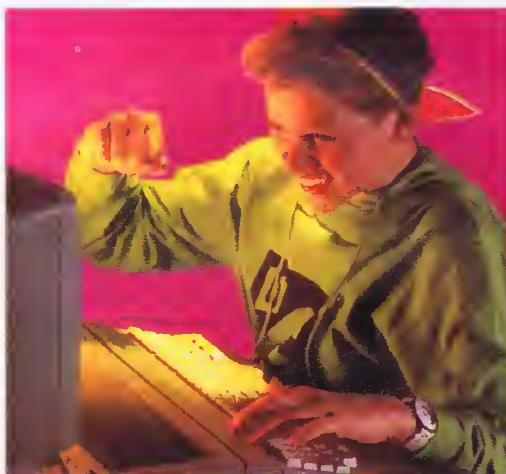
## Cubeat gets more beat

THE baby of one of the world's best Midi software packages has grown with the addition of a popular feature taken from its parent.

Cubeat now has Drum Edit, a facility which is described by Eventide Soundworks (0993 898484) as the most popular edit screen from within Cubase. It makes work easier for anyone using drum machines, enabling them to manipulate patterns in the Drum Edit window.

With some new operating routines, version 2 also has the latest drivers and M.ROS files.

**A strong dollar has forced a price rise of £30 for Discovery Xtra. At £329.99 the ST is still much cheaper than its nearest competitor**



## Tos 2 launched as upgrade

SHORTLY before *Atari ST User* went to press we received a report that owners of STFMs or STEs are soon to be offered the operating system of the Mega STE as a 512K upgrade rom.

The main improvement in Tos version 2 is the Desktop, which is very similar to version 3 in the 32-bit TT and gives much faster hard drive handling.

The new-style Desktop looks similar to the original Gem Desktop but is better in numerous ways. Operations such as changing screen resolutions can be made with key-

board shortcuts, and files and folders can be dragged on to the Desktop enabling application icons to be stored where they are easier to find. Files remain in their respective folders.

Other enhancements include different Desktop patterns, coloured highlighting for files and icons, different colours for window backgrounds and a new control panel with added icons and features. Sources told *Atari ST User* that a September release date is being aimed for but Atari refused to comment on the rom which is expected to sell

for £50. Experts say the release is "bound to happen" and predict the new version of Tos is likely to have a considerable effect on sales of Desktop enhancement programs such as NeoDesk 3 and DC Desktop because many of their features will be included in the ST operating system. Once Tos 2 becomes available it is thought that it will not be too long before all new STs are built with the rom as standard.



# Fast PC emulator

PC EMULATION on the ST is to progress further with the imminent release of the first 386SX-based emulator from Vortex GmBH.

As a sister to ATOnce Plus, the Mega STE version will run at 16MHz and have a slot for a 387 maths co-processor. Using the STE's cache to its full advantage, graphics emulation will include CGA and mono VGA and EGA.

A 386SX is much faster than the traditional 286 seen on the ST and the extra speed is especially noticeable when run-

ning Microsoft's Windows 3, the PC equivalent of the Gem Desktop.

A year ago emulator developers were saying that technology existed for 386 emulation but it was not worthwhile producing boards because cost would have made them more expensive than the actual machine.

Due for release by early September from Silica Systems (081-309 1111), a price still needs to be fixed. Windows 3 can be bought from the Kent dealer for £116.33.

## More play for ST

ST GAMES players are set to have their wide choice of joysticks expanded further with the addition of two ST models to the QuickShot range.

Both models have the now standard microswitch control. Maverick 1M features include a four-position operating mode selector, arcade-type control stick, two fire buttons, player one/two selector and auto-fire option. With a four-foot cable Maverick 1M has suction pads at its base and costs £15.99.

Python 1M is a microswitched version of the earlier Python 1 joystick. It is described as having an ergonomic design and has two fire buttons in addition to an auto-fire switch. Price, £10.99. Contact Bondwell Europe (081-365 1993).



More fun is heading for the ST with the release of two joysticks from Bondwell Europe

## ARNOR PACKS YET MORE IN

IMPROVEMENTS have been made to Arnor's ST wordprocessor, Protext. The main attraction in version 5.5 is the inclusion of a 43,000-word Collins thesaurus which, whenever needed, lists alternative words which can be selected.

Among other features added for the one megabyte program are automatic hyphenation, widow and orphan elimination, analysis of text by the number of times each word is used and mailmerging directly from the company's Prodata database which itself has undergone changes.

Prodata 1.2's enhancements are pull-down menus, automatic record numbering, merge database, instantaneous filtering, prologue form, edit fields in any order and two-across label printing.

Protext costs £152.75 and Prodata is £99.88. Upgrades for both packages are available for between £30 and £60 from Arnor (0733 68909).

## CD-ROM IN THE WINGS

THE long-awaited CD-rom is expected to be officially launched at Atari's annual Dusseldorf show at the end of August, following comments made by Atari's President confirming that it will be available throughout Europe before Christmas.

Details of the size and nature of CD software library are not yet available and the firm sees the plug-in drive as a product for the future rather than a major product for 1991. Expect a price tag of about £399.

## in brief

PROMOTIONAL material for the latest Contriver Europe (0280 822803) replacement mouse shows that firms are having difficulty finding original marketing material. It says: "What really makes this mouse unique is the fact that it is the first mouse which has been truly developed for the European market. This is evident by the packaging which has been

produced in four languages". Like many recent releases, the 2 in 1 mouse can be used by either an ST or Amiga and has a resolution of 220 dots per inch. It comes with a mouse pocket and a discount voucher for a Mindscape Software title. Price, £19.99.

GAMES giant Electronic Arts have just bought Canadian software developer Distinctive Software, the firm responsible for hits such as Test

Drive II and Teenage Mutant Ninja Turtles and The Simpsons.

More than 40 titles have been released by Distinctive and its firm of 77 staff will continue their work in Canada. Meanwhile, Electronic Arts have struck a deal to become the European distributors of Californian software house Three Sixty.

A RANGE of foreign dictionaries has been released for word processor That's Write. They are available as

## MegaPaint II and II Pro upgraded

ART and image manipulation programs MegaPaint II and MegaPaint II Professional have been given more spice by their German developer Tommy Software.

Extra features found in version 3 are keyboard shortcuts for block handling, masking off white area of blocks, multiple printer drivers installed at once, more file formats, improved block saving, improved "snap-to-grid" handling, redesign of external module handling and more Gem menus.

For new users MegaPaint II release 3 costs £99.95 and the Professional version, £249.95. Upgrades are available from £44.95.

Details of a further update to the package which is set to appear within the next three months for top-end users have also been released.

To increase the speed, version 4 will have many of the modules needed by professionals built-in.

These include TT compatibility, large screen support and Bonet network facilities.

Only owners of version 3 of the software will be able to upgrade to the new release, although a price remains to be fixed.

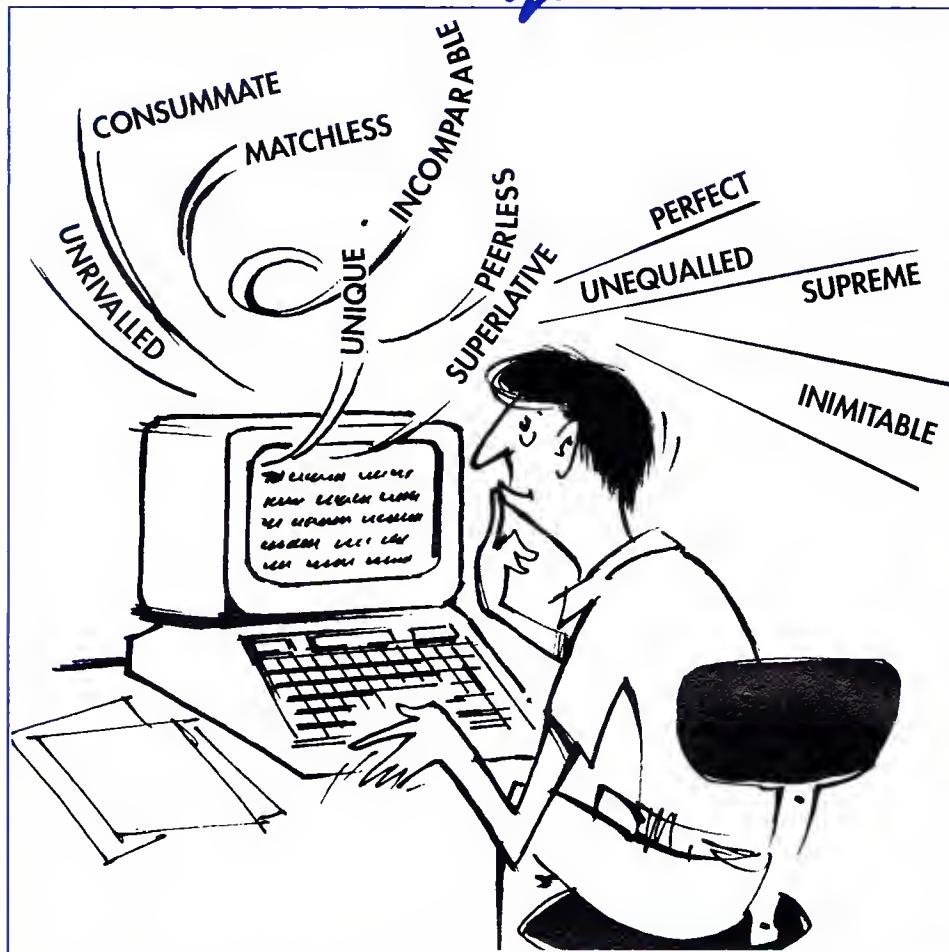
All are distributed in the UK by Silica Systems (081-309 1111).

extras in German, French, French Canadian, Spanish, American, Dutch and Swedish. Using the optional "spell check as you type" feature, words can be automatically checked for correct accents. Each costs £34.99 from Compo Software (0480 891819).

BUYERS of Electric Distribution's (0480 496789) Timeworks Publisher or 1st Word Plus this summer will receive a free mouse worth £24.95.

# PROTEXT 5.5

*"You won't be lost for words" . . .*



**"it's bloody brilliant"**

ST FORMAT

**"one hell of a performer"**

COMPUTER SHOPPER

**"if you need a professional word processor Protext is perfect"**

AMIGA COMPUTING

**"nothing else available comes close"**

ST APPLICATIONS

## PRODATA 1.2

New version of Prodata now with pull-down menus, mouse or keyboard operation, automatic record numbering, merge database, instantaneous filtering, prologue form, edit fields in any order, 2-cross label printing. Full details available from Arnor.

Price: £85+VAT, upgrade from v1.1 £30+VAT.

## PRICES (including VAT and delivery)

For Commodore Amiga, Atari ST or TT.	
Protext 5.5	£152.75
Upgrade from 5.0 to 5.5	£30
Upgrade from 4.2/4.3 to 5.5	£60
Please return your original disks when upgrading	
French or German spelling dictionary	£35.25
When upgrading please return any extra spell checking dictionaries for a free update to the revised version.	

★ Both Protext 5.5 and Prodata require 1Mb of memory



... with Protext 5.5 because the pop-up thesaurus will provide you with inspiration whenever you need it. With words provided by Collins the thesaurus has 43,000 main entries and 827,000 responses!

Protext 5.5 introduces enhanced text formatting options. Automatic hyphenation lets you produce a well-spaced page layout without the bother of manually putting in soft hyphens. Protext determines the correct hyphenation points by algorithms and look-up tables. Elimination of widows and orphans is also provided. You will no longer need to worry about those infuriating single lines at the top or bottom of pages. Protext formats the text to avoid these as you edit the text. Extra blank lines at the top of a page can be suppressed.

New document analysis features provide a wealth of information about your text. You can examine a list of all the words used - alphabetically or by the number of occurrences. Other statistics shown include average word length, average sentence length and a table of the number of lines on each page.

*Plus many more improvements . . .*

- ★ Enhanced file selector with different sorting methods, bulk copy and erase.
- ★ Prodata users - mail merge directly from Prodata files, no need to export.
- ★ Mail merge: nested repeat loops.
- ★ New window-based help facilities.
- ★ Improved line drawing.
- ★ Spelling checker finds repeated word and missing capital letters.
- ★ Conversion to and from WordStar 5.5 and Microsoft RTF
- ★ Full printed documentation of new features.

*Of course Protext still includes . . .*

Choice of pull-down menu or keyboard operation, extensive printer font support and proportional formatting while editing, up to 36 files open, split screen editing, characters for 30 languages, index and contents, footnotes, newspaper column printing, file sorting, macros, indent tabs, mail merge programming language, exec files and the fastest search and replace around. Altogether the most comprehensive word processing software for your Amiga or ST.

ARNOR



WHETHER you wanted to see the latest ST bits and pieces, pick up bargains or simply quiz people in the know, the recent three-day 4th International 16 Bit Computer Show at Hammersmith was worth a visit.

More than 130 firms packed into this year's only major summer event for the serious side of ST computing, and several companies unveiled new products.

New to the country, Protar were showing their range of ProFile hard disks and Visto A 14 CM colour monitor. The drives blend in nicely with the computer and are available with storage space of between 20 and 440 megabytes.

Visto A 14 CM has a 14-inch screen giving a resolution of 600 by 285 pixels and stereo sound. Supplied with all necessary cables, it is set to compete with the well-established Philips CM8833.

Also with German parents, Compo Software demonstrated their wordprocessors and PC emulators.

In case anyone had managed to get their hands on a Mega STE, Compo had adaptors to enable AT-Speed C16 to be plugged into the machine.

One of the longest-serving ST suppliers, HiSoft, had various updates to their line of software. Utilities program Harlequin 2 and an FSM Gdos version of the document processor Wordflair were among their new products being previewed. A data man-

agement system for storing addresses, client lists, articles and documents called 1st Address was on show from Victor Software. The Gem-based program is supplied on rom cartridge and therefore uses little memory.

Its sister from the German company, 1st Base, is described as the fastest database for the ST. The £98 package is installed as an accessory and can be activated from any other application with a mouse click.

New education programs were being shown off by Soft Stuff and LCL, who were demonstrating and selling their Micro French disk. Despite strong support from the "serious" firms there

was a noticeable absence of games software houses and public domain libraries, although many of the latest arcade hits could be picked up at reasonable prices from the many mail order companies exhibiting.

And Atari ST User had its own stand, where staff from the magazine were at hand to listen to your comments and ideas about the publication.

A competition run jointly between the magazine and its sister publication Amiga Computing to win a 24-pin Panasonic printer worth £365 was won by ST owner, Mr Ryder of Palmers Green, London.

The 5th International 16 Bit Computer Show will be held by Westminster Exhibitions (081-549 3444) at the Novotel Hotel, Hammersmith on 7 to 9 February 1992.



On show for the first time was Protar's colour monitor, the Visto A14 CM which is due on sale soon

## DIARY DATES

### 1 September 1991

All Formats Computer Fair  
Organiser: Bruce Everiss (0225 868100)  
Venue: University of Leeds Sports Centre, Leeds.

### 7 September 1991

All Formats Computer Fair  
Venue: Horticultural Hall, Westminster.

### 14 September 1991

All Formats Computer Fair  
Venue: National Motorcycle Museum, Solihull

### 22 September 1991

All Formats Computer Fair  
Venue: City Hall, Candleriggs, Glasgow.

### 6 October 1991

All Formats Computer Fair  
Venue: Brunel Centre, Bristol Old Station, Bristol  
A touring show with plenty of bargains and heaps of public domain software.

### 6 to 8 September 1991

Computer Entertainment Show  
Organiser: EMAP (071-404 4844)  
Venue: Earls Court 2  
The main games show.

### 5 to 8 December 1991

Computer Shopper Show  
Organiser: Blenheim Pel (081-868 4466)  
Venue: Wembley Exhibition Halls  
An opportunity to buy some bargains before Christmas.

### 7 to 9 February 1991

5th International 16-bit Computer Show  
Organiser: Westminster Exhibitions (081-549 3444)  
Venue: Novotel, Hammersmith  
The first post-Christmas show for ST owners.

## OVERSEAS EVENTS

### 23 to 25 August 1991

Atari Messe  
Organiser: Atari Germany (010 49 61 42 2090)  
Venue: Dusseldorf Fairground, Germany

A chance to catch up with what's happening in Germany — where the ST is seldom used for games playing.

### 20 to 22 September 1991

Atari Expo Benelux  
Organiser: InterExpo & Media Holland (010 31 040 528191)  
Venue: Fair Building, Eindhoven, The Netherlands

● If your company is organising a show relevant to the Atari ST let us know so we can include the information in the diary.

## ST gets more sound

AN ST user has set up a firm to sample music on behalf of programmers who want to add sound to their work but do not own the necessary equipment and are not content with the limited choice in the public domain.

Music tapes sent to Sonix are returned within three days with a disk containing the sampled sound for owners of STs and STEs. Prices range from £1.50 for a sample lasting for up to two seconds to £3 for more than a minute.

Sonix is at The Lodge, Delly End, Hailey, Witney, Oxfordshire OX8 5XO.

Do you know something we don't?

Although Atari ST User has scores of contacts in the ST world, we need you. If you have some hot news ring John Butters on the newsdesk now on 0625 878888. All information supplied will be treated in the strictest confidence. Financial rewards are subject to negotiation.

# protar – Looking after number one



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high performance ProGate DC range.

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# WORLD NEWS

If it's worthwhile, it generally happens first in Germany. This month the ST assaults the DTP market and more...

## ATARI ASSAULTS DTP MARKET

LIKE most good things in the Atari world, the Atari assault on the high-end electronic publishing market is coming from Germany.

Following the success of Atari's stand at the Electronic Publishing Show in Chicago, there is a determined marketing campaign to sell "second generation Atari DTP" to a market which until now has never taken the sign of the Fuji very seriously.

The key to success is the ability to provide a complete system solution, a package that will provide everything needed by graphic designers, advertising agencies, publishing houses and so on, from data and picture input to high-end, multi-colour output.

First, there is the new TT with a Motorola 68030 processor running at 30MHz, easily the equal of the top models in the Apple and PC ranges. Simple to network and with a host of options it makes an ideal low-cost workstation in any environment, and sales figures in Germany show that the TT is being snapped up faster than predicted. Second, there is the

recent release of Calamus SL. Much more than an upgrade to the familiar Calamus DTP program, Calamus SL handles four-colour separations – the process of breaking colour images down into the four constituent print colours of cyan, yellow, magenta and black.

Calamus SL has been a long time coming and even the release version is not quite complete but provides truly professional, colour-capable page make-up software that Atari's credibility in the serious electronic publishing stakes required.

And lastly there is a new initiative by 3K-ComputerBild to provide a complete package of their advanced software, together with the Linotype-Hell imagesetter, to meet even the most exacting quality and speed requirements.

Retouche Professional CD will be able to handle 24-bit colour graphics from the scanning stage down to lithographic screening and four colour separations output to the imagesetter. Didot Professional – which started life as Didot LineArt – is a desktop



publishing package in its own right, with advanced layout features for up to 99 pages and use both PostScript and Calamus fonts.

The power and speed of these new offerings are set to give Atari a strong foothold in the brave new world of electronic publishing and what is known in the trade as "prepress" systems.

Further details about UK availability of Calamus SL from Signa Publishing, Tel: 0252 370066 and about Retouche Professional and Didot Professional as well as the Linotype-Hell imagesetters, from Copycare Business Services (081-679 7307).

## TEX GETS CALAMUS LINK

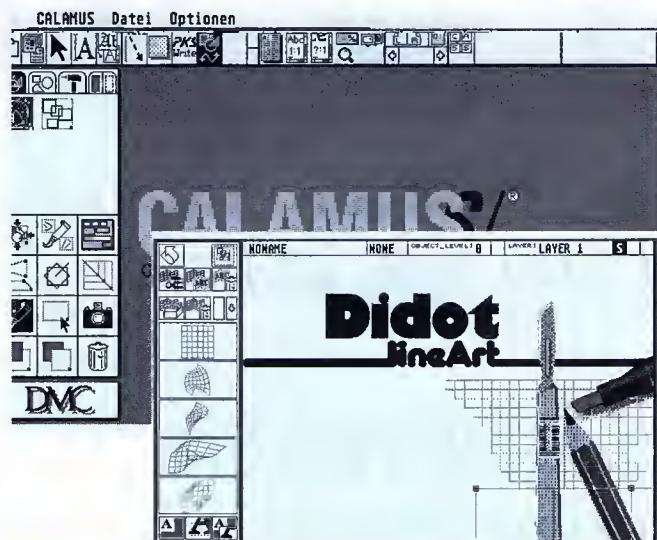
A GERMAN author, Christoph Pagalies, has come up with a utility to convert Calamus fonts to TEX Metafont format. Given the ever-increasing range of PD Calamus fonts and the availability of several Calamus font editors (DMC's own, Didot, Genus), this could immediately broaden the scope of TEX on the ST.

The public domain typesetting and document processing software has met with increasing interest since ST versions became widely available through PD libraries.

It is capable of handling complicated scientific and mathematical formulae as well as producing very high-quality output even on comparatively humble printers.

Despite a rather complicated user interface it is preferred by many to commercial desktop publishing programs and is particularly popular at universities and colleges.

The Metafont Converter is shareware and can be obtained for the trifling sum of DM20 from Christoph at Am Schulwald 24b, D-2000 Norderstedt.



## TURBO C CHANGES HANDS

BORLAND GERMANY have decided to abandon Atari, and their top C programming language Turbo C is back in the hands of its original programming team, trading as Pure Software.

Until recently Borland Germany distributed an ST version and programs including Calamus were written in Turbo C. It never found a UK distributor but was widely available by mail order to those not afraid of a German-language manual. Further details from the purists at: Gollierstr. 14a, D-8000 Munchen. Tel: 010 49 89 5028675.

## VGA ON THE ST



GERMAN company Wittich Computer have produced an adaptor to enable STs to have Video Graphics Adaptor (VGA) emulation. Only Mega STs can use the Imagine VGA card but an STE version is believed to be in the pipeline.

Imagine plugs into the Mega's internal expansion port and supports a range of resolutions from

320 by 200 at 256 colours to 1,280 by 1,024 at 16 colours, provided the appropriate monitor is used. First reports suggest that Imagine is a little slow when running in hi-res or multi-colour modes – not surprising with a plain 68000 processor – but compatibility appears good. The card costs DM 898 from: Wittich Computer GmbH, Tulpennstr. 16, D-8423 Abensberg. Tel: 010 49 94 43-453.

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# Coming soon



## A new User

## Grand grab competition

Britain's brightest and best ST magazine enters a new era next month with big changes on bigger pages.

As a taste of things to come we have incorporated ST World into this month's ST User. You will notice there is no specific section of the magazine called ST World. Instead we have completely merged the content of both magazines.

The regular features which have made ST User such a hit over the years have been joined by the renowned 'Supertests' and 'Buyers' Guides' which have given ST World so much credibility, creating a unique new balance.

### The Gamers Up

This month also sees the farewell appearance of Atari ST User's Play Test games section.

But there is no need for games players to panic! Watch this space in October for the most exciting

concept in games coverage in years.

ST Gamer, the magazine within a magazine, will be first with games news, previews, reviews and features every month.

### Don't miss it

Miss next month's issue and you will lose out on...

- Wider pages with exciting new designs
- ST Gamer – the hottest ST games mag around
- Grand Grab – massive prize giveaways
- TWO Coverdisks – packed side to side with the very best software giveaways
- The ABC of DTP – A revealing feature on DTP, explaining production of a publication from the initial idea through to the finished product.

The NEW Atari ST User – the best ever ST dedicated magazine. Don't miss it!

**B**ack in the dim and distant past two men made a proposition that changed the face of modern music. It was in 1981 that Dave Smith and Chet Wood lit the fuse for the Midi explosion.

After some heated discussion and the invaluable input of the Japanese, Midi was finally born in 1982. Once the die was cast the standard became universal and within 10 years has successfully colonised almost every commercial studio on the planet.

By 1983 the first Midi compatible synthesizers appeared and the race was on within the software world to support the new musical revolution.

The first attempts at sequencing were somewhat less than subtle, but nevertheless they offered the essentials such as unlimited overdubs and of course the ability to tweak, tidy or completely reorganise a track after it had been recorded into the sequencer.

These functions are at the very soul of sequencing, and by definition lie completely beyond the limited talents of tape. Of course along with increased editorial control, digital recordings never degrade no matter how many changes and attempts are required to produce the finished masterpiece.

In the eyes of many an old muso this technological disease has destroyed the sacred art of putting a swirling line of sound on to a plastic disk.

For others, Midi has opened the floodgates for thousands of talented musicians who otherwise would never have carved their name in vinyl due to either a lack of opportunity, practice or tuition on the instrument of their choice.

This broadening of horizons has not only opened music to the untrained but for those musos willing to embrace the new technology the power of the computer has revolutionised the creative process.

Now an entire orchestra waits at the fingertips of composer and finished scores pour from printers at a single key stroke. The ability to experiment, cut, paste, transpose are all done in seconds and without the massive expense of countless re-takes and the extortionate amounts asked for studio time.

Thanks to Midi, modern recordings are being produced for a fraction of the price of a tape-based system and due to the "suck it and see" approach which Midi allows, professionals and amateurs alike are producing work they never imagined possible, all from the comfort of their own home, only visiting the studio to add the finishing touches and lay down the final cut.

Now if you're an old Midi hand you'll be waiting for the usual acronym rundown with the inevitable meaning of Midi, which of course stands for: the **M**usically **I**nformed can be **D**esperately **I**rritating, as opposed to the all too often quoted alternative, which other mags would have you believe.

This tendency for technospeak rather than explanation is usually enough to put many people off experimenting with Midi before they've programmed a note.

In fact, Midi is by no means as complex as

## **The ST has long**

**been the  
musicians'  
choice.**

**Paul Austin looks  
at why, and how  
you could  
become the next  
Mega star...**

work either of the two packages would be ideal, and even if the studio you choose happens to use the alternative package to your own, exchanging files between the two is simple.

So there shouldn't be any real problems, and of course there's nothing to stop you dragging your own system in with you if necessary.

Given a direct choice, I'd go for Cubase, as it's slowly but surely taking over from Pro 24 as the studio standard as far as the ST is concerned. Now keyboard selection is a tricky one, as opinions of the same hardware

a lot of techno junkies would have you believe, and to combat the acronym attack a brief explanation of some of the basic principles is in order.

### **SELECTING YOUR SEQUENCER**

The range of sequencing alternatives on the ST are almost as wide as the variety of music produced on them, but if you are new to the business the latest musical bundle comprising of a 1040 and Steinburg's pro 24 III has to be a very attractive proposition for newcomers to the music scene.

If you combined the hardware and software purely on monetary terms you effectively get Pro 24 for nothing. Not a bad deal, as Steinburg has and indeed still is the standard package in many commercial studios, only recently having its supremacy challenged by Cubase for the title of the ST's top sequencing package. If you're looking towards studio



**The big three line up, but the ST is still leading the field in the musical stakes**

# Midi maestro please

can differ considerably depending on taste, but as far as Midi's concerned the only real consideration is the available ports which obviously must have IN, OUT and THRU. The latter may not be available on ageing second hand gear, but it can be invaluable if you're planning to expand your system later.

A secondary, but still huge, consideration when investing in a keyboard is the availability of patch editing software. In the first few weeks of ownership it may seem unimportant, but it soon becomes invaluable when you're looking for new sounds without incurring the expense of a new synth.

Patch editing comes second only to sequencing if you're on a limited budget. Put simply, it allows you to import the sounds from your synth or module into the computer for editing.

This process is referred to as a fetch, and once fetched the formerly unobtainable sound appears on screen as a series of waveforms and variables which are very easy to relate to and make complex changes as simple as dragging a point on a wave or selecting an option from an icon.

Anyone old and unfortunate enough to remember the nightmare of programming synths sounds via the faceless control panel of a synth with endless complex algorithms will waste no time in extolling the virtues of a decent patch editor.

The miraculous little utilities allow you to completely redesign your sounds, all the way from simply altering the waveform right through to the type of reverb or the length of delay, in fact any parameter relating to the sound. If that's still not enough, individual sounds can be blended or totally new ones created from scratch. When your masterpiece is complete either

individual or entire banks of sounds can be saved to disk or dumped back into your synth in the locations of your choice, where they'll remain until the next update, stored permanently just like the originals.

A word of warning: Always back up before you start to tinkering, it can save a lot of tears later on.

With many manufacturers producing synths in both modular and keyboard formats it's tempting to build your system around a central mother keyboard which then accesses the various modules as required.

On the surface, modular expansion seems the ideal answer to the ever-increasing spiral of expenditure that musical addiction tends to inspire, with modules often saving hundreds as opposed to the keyboard alternatives.

Having said that, it's still much easier to sell a complete keyboard rather than a module, so if you're the sort of person who has to keep up with the neighbours, complete keyboards may be a better bet purely from a resale point of view.

The key to keyboard selection is to look for the added extras, like reverb and delay, built-in drum sounds, and so on. It's this area where multi timbre modules come into their own.

Multi timbre simply means that they'll play several instruments at any one time, with most modern units handling up to eight separate synth voices simultaneously in addition to a complete drum track arranged from a variety of drum sounds - all packed into a tiny box that's best described as a musical Tardis.

It's not quite all beer and skittles, as there's a limit to the number of individual notes or partials that can be played together. With most multi timbre units the available number of partials is about 32, so that means up to eight separate voices can be playing in concert as long as the total number of individual notes doesn't exceed 32. Did I say Midi?

## Famous ST user's

### Films

Milagro Beanfield War  
*(Oscar winner)*  
Famous Baker Boys  
*(Grammy winner)*  
Born on the fourth of July  
Glory  
Steel Magnolias  
Honey I shrunk the kids

### Music

B.B. King  
Oscar Peterson  
The Pointer Sisters  
Tangerine Dream  
Lee Ritenour  
Fleetwood Mac  
Beach Boys  
Blue Oyster Cult  
Dire Straits  
Earth, Wind and Fire  
Peter Gabriel  
Debbie Gibson  
The Go Goss  
Dave Grusin  
Hall and Oates  
Ice House  
Madonna  
Dave Mason  
Midnight Oil  
Miami Sound Machine  
The Moody Blues  
New Kids on the Block  
Dionne Osmund  
Lee Ritenour  
Supertramp  
B8 Special  
Ultravox  
Van Halen  
Whitesnake  
Steve Winwood  
Joseph Zawinul

wasn't confusing? This band in a box effect is all due to the power of Midi, and the huge mountains of hardware once associated with the average keyboard player have been condensed into a single lightweight unit that produces the illusion of an entire band thanks to a few blips of data from a sequencer. Isn't technology wonderful – as long as you're not an ex-session musician, of course.

For the beginner multi timbre units such as the Roland CM-32L and the older MT-32 are ideal. The sound quality doesn't match that of dedicated units such as Korg's M1 and others, but they're still a great place to start, and even with their restrictions on quality they easily match up to the performance of infinitely more expensive units that were producing classic hits only a couple of years back.

OK, once you've chosen your sequencer, modules, keyboards or both, the next step is to connect it all up. With an ST things couldn't be simpler. It's just a matter of a few Midi cables connecting the Midi OUT from the source to the Midi IN on the ST.

If, however, you're looking to build a system that uses multiple sources, a Midi junction box might well be a good investment.

With most units offering Midi THRU, it might seem something of a waste to invest in what is merely a signal splitter, but daisy-chaining several units via the THRU ports can occasionally run into problems if you're linking three or four units together.

Each time the Midi information is passed THRU a unit a little of the initial quality is lost, and as a result the signal can become dirty and obviously some data may be corrupt when it's passed on to the next unit in the line.

Because a Midi cable itself is basically a serial link which is passing data in succession down the line to the next unit in the chain, long cables mean increased transfer time. As a result those at the end of lengthy cable and THRU port connection may not receive their data fast and clean enough to keep up, and as a result information can become scrambled.

A junction box simply gives a copy of the complete Midi signal direct from the sequencer to each sound source. As a result there are no lengthy cables between the ST and the target and of course no THRU ports.



To the left we have the latest Midi friendly unit from Foster. A perfect choice for a beginner looking for a multitrack

Below we have a brief glance at some of the huge variety in the Multitrack market, from the tiny X-28 very serious eight tracks systems

## MIDI MUSIC LESSONS

As simple as sound recording and especially Midi appear on paper, it can be a confusing area, and to beat the technology blues Manchester's School of Sound Recording or Spirit offer a whole range of courses aimed at making any musician's first tentative steps a little easier.

If Manchester is a little too far afield try inquiring of your local authority for similar schemes in your area. Wherever you choose, the principles will probably be the same, so here's what to expect.

Spirit offer three short five - and three - day courses aimed at complete beginners and the more advanced alike.

The first course gives a basic grounding in the studio and covers the basics of recording and working in a studio environment. It isn't aimed at Midi, but rather at getting your talents on to tape.

The second course is a direct follow and goes much deeper into signal processing and mixing. It also makes a start on Midi with an introduction to SMPTE time code, sampling, triggering and principles of Midi. If you can class yourself as a well-versed amateur this could be the one for you.

The final part of the trilogy is the Sampling C.M.I. programming and Midi Workshops. This course runs over a weekend and covers the more advanced aspects of Midi, covering the theory on sequencers, drum machines and a more in-depth look at sampling.

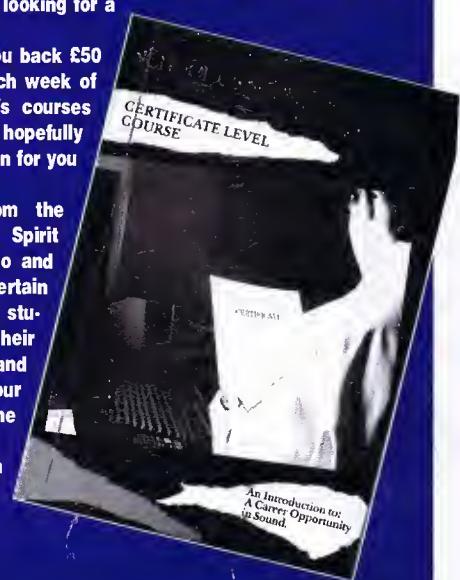
More detail is explained on time code and synchronisation, plus a look at Midi controlled effects and recent advancements in the field such as Midi mixers, programmable patch bays and pitch to Midi converters. The

courses vary in price from £172.50 to £230.00 inc. If a weeks tuition isn't enough Spirit also hold a 48 week course that can be taken either during the day or in the evening. As you might expect, this goes into great detail and is designed for those looking for a career in engineering.

Registration will set you back £50 with £30 to follow for each week of the course. All of Spirit's courses provide a certificate and hopefully a step in the right direction for you and your music.

As you can see from the scanned record sleeves, Spirit also has a working studio and most courses give a certain amount of studio time for students to produce either their own work or that of a band which can either be your choice or provided by the studio.

If you're interested in signing up you can contact Spirit for further details on: 061-228 1830.



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Casio's excellent DAT recorder winning many friends in the music business

which can support an external sync unit.

This is vital if you're going for really big productions as it allows you to sync your sequencer to music already present on the track.

The second and lesser consideration is the recorder's tape speed. The higher the speed the better the sound quality – it's as simple as that. So check that before you hand over the cash.

Once you have your sequencer and studio synchronised the original 16 channels of Midi becomes chicken feed as a complete 16 channel sequence can be assigned to each track on the recorder.

This miracle occurs thanks to a Midi time code, or MTC, which is recorded directly on to the tape. MTC is a descendant of SMPTE/EBU time code, the industry standard in the TV and the film business since Adam was a lad.

Once it's recorded on to a track MTC can be read by the sequencer on play back or record. As a result the sequencer can adjust its Midi information accordingly, sending perfectly synchronised data to the various keyboards and modules as you record.

Thanks to MTC the bad old days of ping pong recording are long gone. These days there's very little need to bounce countless tracks together, degrading the sound quality in order to produce a *big sound*. Thanks to the efforts of Midi and MTC, the average modern multitrack is more than capable of producing the same sound as a 24 track system of less than 10 years back. OK, the sound quality won't be up to the same standard, but the impact can still be astonishing.

Once you've built your system and written a classic the final task is to mix down your masterpiece and create the next number one.

Again Midi can play a large part in the process, especially if you're working with a professional Midi – friendly mixing desk which in some cases can be preprogrammed to automatically punch in, fade out and mute tracks as the mix takes place.

In the bad old days mix down meant all hands to the console as various tracks were

## THE ST IN THE 21ST CENTURY

The next step on from a standard Midi setup is to upgrade to recording direct to hard disk. Only as little as two years ago this type of system was strictly for the pros, but thanks to Digital Designs Sound Tools system, it's now within the reach of mere mortals like you and me.

Sound Tools is a two channel direct to disk system that can use a 1040 fitted with an accelerator and four megs of ram to process the incoming data from an analog to digital converter which writes the incoming signal from the mixing desk direct to hard disk.

The paperless office never really appeared, but the tapeless studio is already with us and Sound Tools will soon bring such power to the back bedroom studio of many a Midi enthusiast.

As well as the ST, accelerator and converter a reasonably speedy and sizable hard disk is essential. The choice is yours, but no matter what size of disk is used it must have an access time of under 35 milliseconds.

To give you an idea of what's required, approximately 10 minutes of recording can be squeezed on to a 100 meg drive. Once recorded, the entire song can be treated like a normal sample and entire sections can be cut, pasted, looped and combined as required.

The system minus the hard drive is on offer for £2,864 and brings pure digital production to anyone with a wallet to match their enthusiasm.

**The benefits of digital recording are incredible, not only for the powerful editing options but also the actual range of sound that can be captured. Due to the dynamic limitations of tape, there'll always be a certain amount of fidelity lost, but with pure digital signal the entire dynamic range is captured. As a result a whole range of added definition is added to the finished product. As you can tell, I'm impressed...**



The sound tools system in all its glory, pure digital, back bedroom recording, here we come!

added and subtracted from the overall sound. This process almost inevitably led to the odd disaster and a tendency for individuals to add a little too much of what they liked and perhaps a little less of what they didn't.

For most of us using home studio equipment, the need for countless fingers on the faders isn't really a problem, but there's still the question of where to store your work and how to keep it at its best after the four hundredth demo had been dispatched to the record companies.

In the past this meant occasional remixing of masters or running a few copies off at one time, all with the hiss that only analog can add to the sound.

Fortunately an answer has arrived for the semi professional who wants to maintain

sound quality. DAT – or digital audio tape – is the answer to many a muso's prayer, giving a crystal clear signal and no degradation no matter how many copies are made from the original. The DAT player illustrated is a perfect example of what's on offer. Retailing at around £500, it's ideal for the serious enthusiast.

Well that's about all you'll need to put you on the road to fame and fortune, but if you want to know what to do with the royalties from your first album, read on...

*Special thanks to A1 Music Manchester and Spirit Studios for their invaluable assistance, and especially to Max Lindsay-Johnson of A1 for his essential technical support.*



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As well as supplying a large range of hard drives we also sell a 155MB tape backup device which can be used with all Atari hard drives. The unit will backup 20megs of data in under 2 minutes. It uses industry standard CT600N cassettes.

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106M/Byte Supra hard drive	£599.99

Call for more details on Supra hard drives

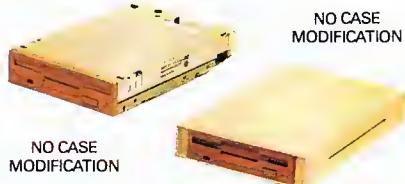
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# COVER DISK

**Once again the Atari ST User team have been burning the midnight oil to present the best CoverDisk around. Great games plus the ultimate utilities and demos, all crammed onto one disk!**

## SIDE ONE

### SUPER CARD INDEX

This FULL VERSION of the popular Super Card Index program from B.Ware Software allows you to set up free-format database files with the minimum of fuss. Written in compiled GFA Basic, it has a nifty turn of speed and is very simple to use.



### NEW SERIES

The Runtime section of the coverdisk has two new series starting this issue. For STe owners (and prospective owners) Adam Greenwood takes the lid off the STe to show what it is capable of.

For STOS programmers Mike Dixon-Kennedy starts a series going Beyond STOS, which sheds some light on some things even the manual didn't tell you.

### PLUS

- Playback routines allowing you to play your TCB Tracker music from within your own programs.
- The final instalment of the 3D Graphics series carried over from last month.
- All the documentation for all the coverdisk programs this month.

## SIDE TWO

### BEAST BUSTERS

From their new H.Q. en Francaise Activision have sent us this fully playable two level demo of Beast Busters, the gruelest game around. Superb one- or two-player nightmarish action.



### BOING

Play this game and you won't be surprised at its name! Guide the maniac bouncing ball around the screen avoiding the mushrooms and collecting the fruit.

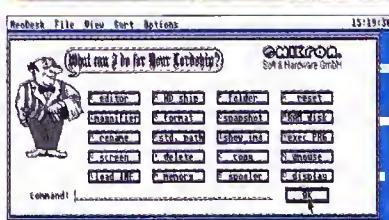
A difficult but addictive game which gets this month's vote for "Game most responsible for the coverdisk being late!"



### MORTIMER

Let Mortimer be Jeeves to your ST's Wooster! The perfect manservant, Mortimer only comes when he's called, or when something urgent requires your attention (like a virus!).

The rest of the time he just gets on with his work quietly, spooling a file here, managing a Ram disk there. You'll wonder how you ever did without him.



## How to handle all these goodies

### TRIED AND TESTED

We put a lot of hard work into finding the very best games demos and public domain programs to put on the Disk and check it thoroughly for viruses and other nasties.

Do bear in mind however, that although we test every item on the Disk with the huge variety of STs here at the offices, we cannot guarantee that every program will work as intended with every configuration available.

If you do discover a program which works strangely or not at all, then please don't hesitate to

tell us about it so that we can publish updates or further instructions.

Where we know a program will not work with a particular configuration, but is one which we feel the majority of you would want and will be able to use, we'll make note of the fact on the Disk pages.

### IF IT DOESN'T WORK

If you're the unlucky recipient of a Disk which won't work at all, send it to Stanley Precision Data Systems, Unit F, Cavendish Courtyard, Sallow Rd, Weldon North Ind Est., Corby, Northants, together with your name and address and we'll replace it.

### THAT'S MY PROGRAM!

We also try to ensure that all of the programs distributed on the CoverDisk do not breach copyright and all programs on our Disk are distributed in good faith. If however, you discover a program which you feel infringes a known copyright, then please tell us so that we can take appropriate action.

We cannot be held responsible for software which does not perform to the programmer's specification, nor can we assume responsibility for any instances of copyright infringement.

# MORTIMER A YOUR SERVICE

**Configuration:** All STs  
**Filename:** X\_MORTIM.TOS

Although not so well known in Britain, Omikron Software have been producing excellent software in Europe for several years, including the version of BASIC that is bundled with every ST sold in France, Germany, Austria, Switzerland, Spain and the Netherlands!

Distributed in Britain by Kuma computers, Mortimer has been one of their best selling products for some time.

Mortimer is an all-in-one text editor, printer spooler, virus guard, Ram disk, screen snapshot and calculator, and also allows you to set up keyboard macros and perform numerous disk functions. All this, and the program only takes up 64K of memory!

There are a number of files supplied with Mortimer, and these have all been included in the archived files X\_MORT01.TOS and X\_MORT02.TOS. These files must be de-archived before use. To de-archive the files, follow the instructions on Page 27.

Please note that because of the size of the files single sided disk drive owners should copy the two programs to separate disks for de-archiving. Once de-archived the two files can be deleted, and the contents of one disk copied to the other to produce the Mortimer master disk.

## KEEP THAT DISK

Mortimer II is now available from Kuma Computers, and will be reviewed soon in ST User. The upgrade has many improvements on the version on the coverdisk, including:

- Word wrap in the Editor
- Hex mode in the Editor
- RAM Monitor
- Search for files on Hard Disk
- An improved File Selector which can be used in any program
- Show mouse coordinates

- Switch mouse on or off
- More compatibility, works on TT, dynamic memory manager etc.

What's more, Kuma Computers will allow you to upgrade from Mortimer to Mortimer II for only £20, including P&P **AND THAT INCLUDES THE VERSION OF MORTIMER ON THIS COVERDISK.**

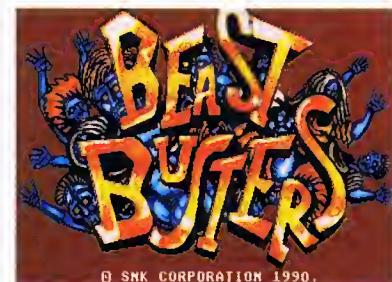
To upgrade, simply send the coverdisk together with a cheque or postal order made payable to Kuma Computers to **MORTIMER UPGRADE (ST USER), Kuma, 12 Horseshoe Park, Pangbourne, Berks RGB 7JW**

## MANUAL

While the full version of Mortimer is provided on the disk, there is simply too much in the program for us to describe in any detail here.

Kuma Computers will, however, supply you with the manual for only £6.50 including P&P.

Simply send your cheque or postal order to: **MORTIMER MANUAL (ST USER)**, Kuma, 12 Horseshoe Park, Pangbourne, Berks RGB 7JW



## BEAST BUSTERS

**Configuration:** All STs. Low Resolution Colour only.  
**Filename:** UNPST.PRG

The latest gory Beast-'em-up from Activision pits you against terrors from your worst nightmare armed only with an automatic and some hand grenades. (Sounds quite fair odds to me - Ed.)

All the files in the **BEAST** folder on SIDE2 of the disk must be copied to the **ROOT** directory of a blank disk before running (ie they must NOT be in a folder).

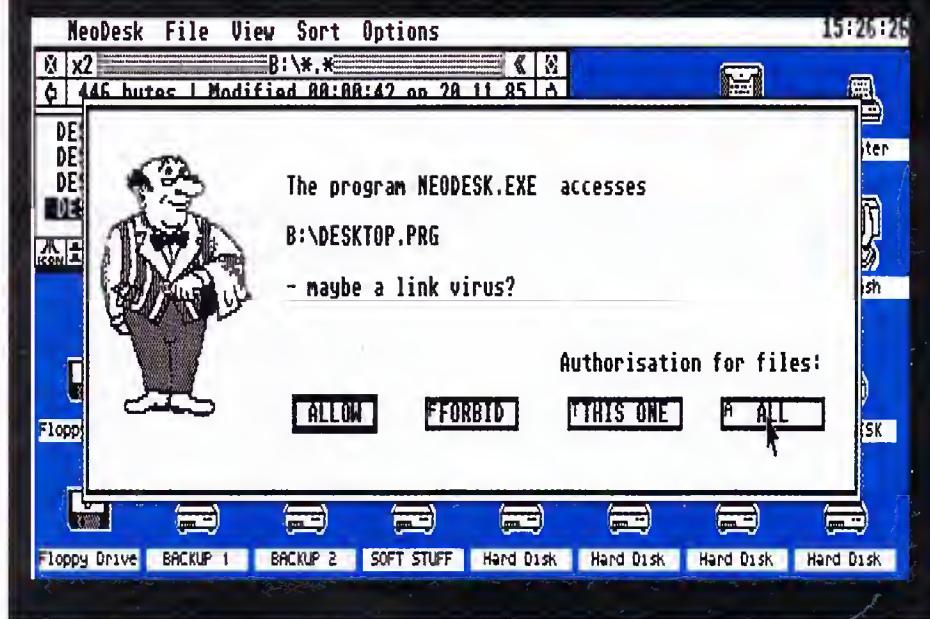
If you wish, the **UNPST.PRG** file may be put in a folder named **AUTO** on this disk, which will allow the game to auto boot.

To play Beast Busters either auto boot (see above) or double click on the program **UNPST.PRG**. After a few moments a title screen appears, and a tune begins. Either press a mouse button or the joystick fire button to begin.

The game may be played by either one or two players, and the second player may join in at any time simply by pressing his fire button. Player one is controlled using the mouse and left mouse button to move and fire, and the Alternate key to lob a grenade.

Player two uses the joystick to move and fire, and the Caps Lock key to lob his grenade.

The object of the game is, if it moves, kill it before it kills you!



# SUPER-CARD-INDEX

**Configuration:** All STs. Mono or Medium Resolution colour.

**Filename:** X\_SUPCRD.TOS

This very flexible card-index program comes from B. Ware Software, who are perhaps better known for their educational software. Written and compiled in GFA Basic by Mark Butler, the program is totally flexible.

There are no field names and lengths to set up – the program handles everything. Simply type in the data required. The program will allow you to search on a number of criteria.

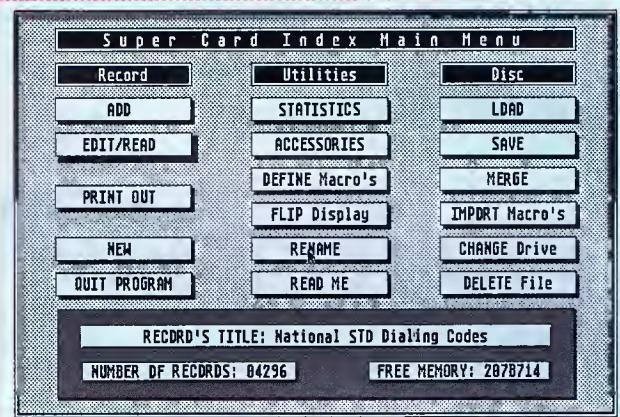
As an example, if you had a database of all your customers' names and addresses, you could search for all the newsagents in the Midlands by selecting "search for newsagent" and "Midlands". Searches can be case dependent, and can include up to four elements.

The program is supplied here as an automatic de-archiving file. In order to run it, the file X\_SUPCRD.TOS must be copied to a blank disk, and then run.

For full details see the instructions on de-archiving on Page 27.

An example database file has been included with the STD dialling codes for Britain included, so if you want to find out where 0625 is the code for, it will save you a lot of flicking through your telephone directory.

The program has been released as Shareware exclusively through Atari ST User. The READ\_ME.NOW file in the archive explains the concept behind this. If you like the program, simply send B. Ware a crisp fiver, and they will not only send you the manual, but also a demo disk and a special offer on upgrading to Super Card 2, the new version of the program.



## BOING

**Configuration:** All STs. Low resolution Colour only.

**Filename:** BOING.PRG

This unique game (from Unique Software) puts you in control of a ball bouncing around a series of screens, collecting fruit while avoiding mushrooms. O.K. so the scenario doesn't sound too exciting – but wait 'till you've plugged in your joystick!

While the ball bounces constantly, the height of the bounce may be controlled by using the fire button. Moving the joystick left and right, surprisingly, moves the ball to the left and right.

Collecting fruit is simply a matter of bouncing on it – while any contact with a mushroom is instantly fatal. Once all the fruit from the current screen is collected, an exit will appear. Making your way to this will transport you to the next level.

As if all of this isn't hard enough, there is also a thermometer on the right of the screen. The temperature rises constantly, and if the thermometer reaches the top, it's bye bye bouncer! The only way to temporarily halt the rising heat is to bounce on a fruit(!?). You can gain extra lives and points by completing Bonus levels – but beware as they require very quick thinking and lightning reflexes!

# Fame and Fortune!

## Well, fame and a few quid anyway!

Have you written a utility you just can't wait to share with everyone? Is your latest program the best of its kind? If so, send it to us.

We only include the best software on the Atari ST User coverdisk

**“It's the programs User rejects that make our coverdisk the best!”**

### TEN TIPS TO COVERDISK STARDOM

- ① Check your program before sending it in. Make sure there are no obvious bugs, and that it works "as advertised".
- ② Where possible include only one submission per disk.
- ③ If at all possible, include an executable version of the program. If this is not possible, state in which language the program is written.
- ④ Write your name, address, phone number and the program name on the disk label.
- ⑤ Include a separate piece of paper describing the program and how to run the program. Also tell us what machine(s) the program has been tested on (eg 12K/1Mb memory STFM/STE). If possible also include a printout of any documentation.
- ⑥ State clearly whether the program is your copyright, or in the public domain, or shareware etc. We are unlikely to pay you if the program is already freely available or has been published elsewhere.
- ⑦ If you want your disk back, enclose a large SAE.
- ⑧ Send your program to: Atari ST User Coverdisk Submissions, Europa House, Adlington Park, Macclesfield, SK10 4NP.
- ⑨ Be patient! Although we will acknowledge receipt of all programs, it takes some time to evaluate and test them on different machines.
- ⑩ Once the program has been evaluated, we will write and let you know. Even if we do not publish your masterpiece, we will at least let you know why not!

### What's in it for me?

Although getting a program accepted for the coverdisk should be reward enough in itself, we do pay for original submissions. Don't expect to get rich, but programs of sufficient quality may earn you more than you think!

### WHAT ARE WE LOOKING FOR?

Good question! Any type of program will be considered, but take a look around at the PD libraries and some earlier coverdisks before slaving over a hot keyboard for too long! The most popular games we get sent are fruit machine simulators and SEUK shoot 'em ups. The most popular utilities are disk formatters and sprite editors.

Don't let that stop you sending in your disk-formatting fruit machine sprite editor shoot 'em up, but it's got to be something spectacular to catch our eye!

# Helpful hints

## FILE COPYING

Copying files from the coverdisk to a separate disk for de-archiving or running can be a time consuming business where you only have a single disk drive.

All that disk swapping can be prevented by using a RAM disk. Simply copy the files required to the RAM disk, then copy the files from the RAM disk to the destination disk. The RAM disk provided by Mortimer is ideal for this as it adjusts its size to suit the contents.

## DE-ARCHIVING

Copying the files which require de-archiving to a RAM disk, then running the de-archiving program from there, will speed up the whole process.

Don't forget to copy the files from the RAM disk to a formatted disk after de-archiving though!

## PROBLEMS

We take a great deal of care trying to ensure that the programs on the coverdisk work correctly on all machines

If you have a problem, read the instructions on these pages carefully and make sure you are following them to the letter.

Some programs will not work from within a folder, and some insist on being in drive A.

## DERICK THE DROID

A number of readers have had problems with the game Derick the Droid on the August issue Coverdisk.

The files within the folder DERICK, which is in the folder SIDE2 have to be copied to the ROOT DIRECTORY of a disk before the program is run. The program must also be run from drive A (the internal disk drive). Failure to do this will result in a FILE NOT FOUND message.

# RUNTIME

**The definitive lexicon of programming from those in the know: professional ST programmers**

The Runtime program is a convenient way for you to read the documentation for many of the programs on the CoverDisk, and also contains great articles and tutorials

## FIRST STEPS IN BASIC

This month we take a look at program structure. Once you've got to grips with Basic, don't be let down by writing poorly structured programs. Follow Peter Philips advice as he covers the ins and outs of the dreaded GOTO statement and delves into the intricacies of the FOR..NEXT loop.

```
FOR n = 1 TO 100
PRINT "RUNTIME IS GREAT"
NEXT n
```

## YOUR DISK NEEDS YOU

Here at Atari ST User we're always on the look-out for new programming talent. ST owners the world over love to program their machines and we love to publish the fruits of those programming efforts - many of which rival commercial offerings.

If you've written a program which you think would be interesting to other readers, send it to us. Sure, it's easy to be discouraged, "they'll never publish this..." and you'd be right! We can't publish programs we don't receive, OK? Whatever language you've used, Basic or assembler, Pascal or C, send it to us, we'll evaluate its potential and if it's good enough for the Disk - why, we'll even pay you! If you're going to send a program, here's what to do.

- Check that it works and that it's as bug-free as you can get it. May sound obvious, but you know your own code. An inexperienced user might press one wrong key and send the whole thing scampering away for cover.

- Make sure that it's ALL your own work. Don't rip off code from anyone else then send it with your name. We'll send it back with the forces of law and order...

- Include full instructions.
- Include your name and address.

- If you want the disk back, include a stamped addressed envelope.

- Include a signed declaration bearing these words "I agree to indemnify Europress Publications against all possible litigation arising from the use of my software". If you're under 18, get your parent or guardian to sign it too.

This last point is very important and we cannot even consider your software without it. Then once you've sent a disk, be patient. We get lots of submissions and we give each one careful consideration.

## CODE CLINIC

If you have a question about the ST, then the Code Clinic is the place to get it answered.

It is also where you can help out with someone else's queries.

This month the topics covered include the differences between interpretive languages, compilers and assemblers, Midi software problems, problems with DMA redirection and the RS232 buffer.

## GETTING STARTED

RunTime is a disk-based magazine program with articles providing programming help, hints and much more.

The magazine appears on side one of the Disk as RUNTIME.PRG and to read it just double click on it. You'll see a screen with the Atari ST User logo on the left and a list of menu options on the right.

These menus contain the titles of all the programs, articles, games and utilities on the CoverDisk. Click on a menu option and the article will be loaded and displayed on the screen. If your monitor isn't very clear you can print out the article.

At the foot of the screen you will find several icons. Here's what the main ones do.



This is the icon which enables you to return to the opening main menu. Click this if you want to stop reading the current feature.



Use this icon if there is a particular page of the feature which interests you and which you wish to have on paper.



If you need to print the entire feature, tutorial and so on, this is the icon you need. Click here to send the complete feature to your printer.



Often, as you're reading a feature there'll be an associated picture to help illustrate a point. Click on this icon to see the picture.



Everyone, even learned programmers, needs help occasionally. If you find that some friendly advice is needed click the cross.

# USING THE DISK AND RUNNING RUNTIME

**Follow these simple instructions to get the most out of your CoverDisk, It's easy when you know how!**

Some of the programs on the CoverDisk have been packed using an archiving program. This is done to ensure that we can fit as much as possible onto your Disk. To make the de-archiving process as painless as possible we have used a self-extracting archive program.

In short, this means that all you have to do is copy one program to a blank disk, then run it and all the archived files for that application will be extracted.

To make the self-extracting programs easier to spot, the filename used will always be of the format X\_?????.TOS where ? may be any letter or number (X\_RAMDSK.TOS for example may hold archived files for a ramdisk).

If you find a file with this type of name, simply format a disk and copy the file to it. Then put the disk containing the program into the drive, and double click on the program. The files will extract themselves.

If you are still not clear on the procedure, follow the numbered instructions below for a step-by-step guide.

For this exercise we will assume the file is called X\_PROGNM.TOS:

1. Put the CoverDisk in drive A, switch on computer, monitor and any external disk drive.

2. Make sure you have a blank, formatted disk. This disk should NOT be write protected.

3. Ensure the CoverDisk IS write protected and then put the CoverDisk into drive A.

4. Double click on the DRIVE A icon on the Desktop to open a window.

5. Size the window so that the file is visible within it, and the DRIVE A and DRIVE B icons are visible on the Desktop.

6. Point at this file with the mouse pointer, press and hold the left mouse button, and drag the file over to the DRIVE B icon. When the DRIVE B icon is highlighted, release the mouse button.

## ARCHIVING - WHAT IT ALL MEANS

Many programs on the ST are large and use lots of files, such as resource files for a GEM program, data files for a spreadsheet, or tune files for a music program. In order to fit as many programs as possible onto the CoverDisk, complete with all their associated files, the archive program was written.

Although there are a number of different versions of the archiving program they all achieve more or less the same result. A number of files are taken, compressed and merged together to form one large file, which is smaller than the sum of the individual files.

To extract the original files from this archive it's usually necessary to run another program which loads the archive file and writes the uncompressed files back to disk. This method was previously used on the CoverDisk, using the program

ARCX.TTP. But to make things simple, we're now using a self-extracting archive.

This is a utility which turns an archive file into a program which, when run, extracts all the files from the archive and writes them to disk. No more ARCX.TTP

The self-extracting archive program appears just like any other program on the ST, and for this reason we've adopted the following standard. All self-extracting archive files will have the prefix X\_ and the suffix .TOS

As an example, the filename X\_1STWRD.TOS may be the self-extracting archive of the 1st Word program and associated files.

These self-extracting archive files should be copied to a blank disk before being run because they will attempt to write out to the disk from which they're run.

7. If you have an external drive, put the blank, formatted disk in it now. Ensure this disk is NOT write protected.

8. An alert box will appear, showing 1 file to be copied. Click on OK.

9. If you do not have an external drive: when prompted to insert Disk B in Drive A, put in the blank, formatted disk, ensuring it is NOT write protected, then click on OK. When prompted to insert DISK A in DRIVE A, insert the CoverDisk and then click on OK. Repeat this as often as requested.

10. Put the previously blank disk in drive A.

11. Re-boot the computer (by pressing the reset button).

12. Double click on the DRIVE A icon. This will open a window.

13. The window should contain just one file, X\_PROGNM.TOS. Double click on this.

14. The program will now automatically de-archive all of the files, writing them to the same disk. While it runs, a list of filenames will be displayed on the screen. When finished, the Desktop will return, with the window now containing a number of files as well as the X\_PROGNM.TOS file.

15. Point the mouse pointer at the file X\_PROGNM.TOS, click and hold the left mouse button and drag the icon to the wastebin on the Desktop. When the wastebin is

highlighted, release the mouse button.

16. You will be prompted that you are about to delete one file. Click on OK to confirm that this is correct.

17. The disk in the drive now contains the unarchived files. Depending on the programs concerned, you may be able to run them now, or further files may have to be de-archived first. Consult the instructions on the disk pages for the program in question.

## SIDE TWO SERVICE

If you own a single-sided drive, and you're dying to get your hands on the goodies on side two of the CoverDisk, don't despair! Just send a cheque or postal order for £1.50 to Atari ST User Disk Offer, Europa House, Adlington Park, Macclesfield SK10 4NP. We'll put the programs from side two onto a single sided disk and send it out to you. It's that simple!

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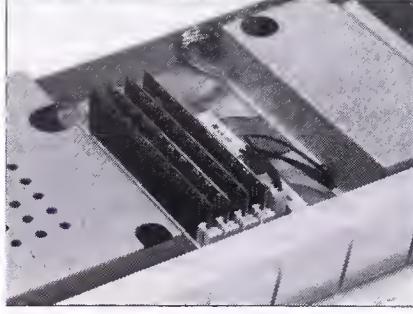
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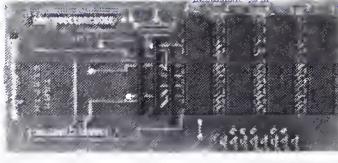
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Reviews

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## GAME NEWS .....

*Secret attack forces, Japanese revenge frenzies and a kid who plays in his pockets? All this plus anything else in the area.*

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## PLAY TEST EXTRA..

*The games that the postman just couldn't be bothered to carry up the stairs.*



## Gallup Chart Top 20

### KEY

- NE = New Entry
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- ▲ = Up places
- ▼ = Down places

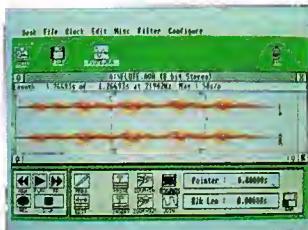
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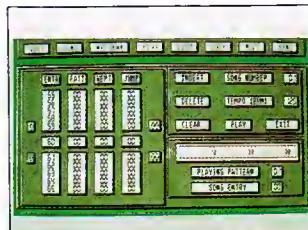
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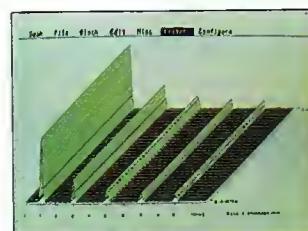
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As you have come to expect from **MICRODEAL** and Audio Visual Research, the **SOFTWARE** provided with the system is also packed with new features. **STEREO REPLAY** does not just set the standards by which other samplers are measured, it has **COMPLETELY** re-defined them!

The **STEREO EDITOR** program provides the user with the ultimate in power and sophistication, packed with features which appear for the first time on **ANY** home computer. This fully **DESKTOP** and **WINDOW** styled program allows individual samples to be loaded into the computer and edited separately. However, this is just the beginning. The program will allow the user to load in samples of **8**, **12** or even **16 BIT** resolutions in **MONO** or **STEREO** formats and freely convert between them. It is possible to take a cutting from a **16 BIT MONO** format sample and edit it into a **STEREO 8 BIT** sample without even realising that the two sample files were different, the program manages all of the sample translations quite automatically!

#### The ULTIMATE STEREO SOUND SAMPLER

The **STEREO EDITOR** supports many useful editing functions including **Mark**, **Hide**, **Cut**, **Paste**, **Insert**, **Delete**, **Clear**, **Fill**, **Overlay**, **Repeat**, **Gap**, **Reverse**, **Fade**, **Volume**, **Loop**, **Loop Join**, **Loop Cross Fade**, **Channel Swap**, **Channel Copy**, **Channel Cross Fade**, **Sample Pan**, **Sample**, **Pre-Sample**, **Play**, **Monitor**, **Scope Left or Right**, **Load** and **Save** and more!

As if the list above was not impressive enough, the **STEREO EDITOR** can also perform more advanced forms of editing such as frequency 'Re-Sampling', Sample **FOURIER** analysis, Digital filtering, Digital Hall, Room, Echo, Reverb and Flanging effects, Play up to 10 different samples from an external **MIDI** keyboard or sequencer and **MUCH, MUCH** more.

The 'STEREO BEAT' program can load **KITS** of up to 15 different samples into memory at once and then play 3 channel (**LEFT**, **CENTRE** and **RIGHT**) sounds out from the **STEREO PORTS** of the cartridge at the same time. Memory permitting, **KIT** samples can be up to 1 MByte in length **EACH**, permitting the user to record sections of their favourite music and completely **RE-MIX** them using **STEREO BEAT**. Patterns of **BEATS** are arranged on a grid format **PATTERN EDITOR** and can be varied from **4** to **32 BEATS** in length with timing set to **1/8**, **1/16** or **1/32** with or without Triplets. **SONGS** are constructed from simple lists of **PATTERNS** with **LOOPS** and **SONG POSITION JUMPS**. A **SONG** can contain up to 99 separate song entry steps whose tempo can be varied from 40 to 239 B.P.M. **STEREO BEAT** can act as **EITHER** a **MIDI SLAVE** or **MIDI MASTER** and can both generate or respond to **MIDI START**, **STOP** and **SYNC** commands.

The **STEREO REPLAY** system is also supplied with routines and examples of code which enable the user to play **8 BIT MONO** or **STEREO** samples recorded and edited with the system from Machine Language or from High level languages such as **HISOFT**, **GFA** and **STOS BASIC**.

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## ROBOCOD

Remember James Pond, the surprise hit of last year? Well, he's back in a new adventure. This time his missions are above water so he has to wear a special metal suit in order to survive. RoboCod, geddit? Oh never mind.

Programmed, like the original, by Chris Sorrell, RoboCod has our hero at a polar research station trying to repair the damage done by some wicked person before the whole world starts to suffer. The game will be more of an exploration game than James Pond but will still be as good, if not better. Millennium say that it should be out later this year but release dates are a bit vague at the moment.



Ocean have at last got around to releasing Navy SEALs. The movie was delayed because of the Gulf War, and the fact that it failed badly in the States probably didn't help much either. Although I must admit, I saw it on Laser Disk the other night and I thought it was pretty good.

In the game you control the team as they try to rescue some American pilots, and locate some Stinger missiles and destroy them. The action comes thick and fast and, unlike some Ocean games, this one is quite playable.

If things go to plan it should be out as you read this. Providing there isn't another war, of course.



## CHINTO'S REVENGE

This Millennium release follows a young Japanese person who is out to get revenge for the murder of his family. It's viewed from above which gives rise to some very weird perspectives but also adds to the fun.

Because Chinto's Revenge is still in development, the number of levels hasn't been decided yet. It will be released in the autumn so watch here for more details as the time approaches.

## CADAVER LEVELS

Any fans of the Bitmap's game Cadaver will be glad to know that the original was way too easy, so now they have compiled some extra levels for you to complete. Now don't say that they don't look after you! Look for them now, costing £15.99.



## MAGIC POCKETS

The Bitmap Brothers are back with a vengeance. Those shade-wearing poseurs of the software industry are planning a big release in the autumn with Magic Pockets.

The Bitmap Kid (who else?) is the star of the game and he has been gifted with bottomless pockets. The problem with this is that a number of his favourite toys have fallen into the depths of

these pockets and now he must travel to the Magic Pockets World (very imaginative these Bitmaps) to rescue them all.

Magic Pockets has been used over the last few months on the kids' programme Motormouth. It's a multi-level arcade game with four levels of exploration and arcade adventure action.

And make things even worse the music has been provided by Betty Boo. Anyway, look out for this one in the autumn.

## F-1 GP CIRCUITS

The Italians are moving on to the ST scene in a big way. A company called Idea are responsible, in part, for this with several releases across the major formats, including F-1 GP Circuits for the ST. This one allows you to race across nine of the hottest courses ever to hit a computer.

You race against 20 tough opponents but can customise your car to handle anything they can throw at you. It should be available as you read this so hot-foot it down to your retailer and have a look.

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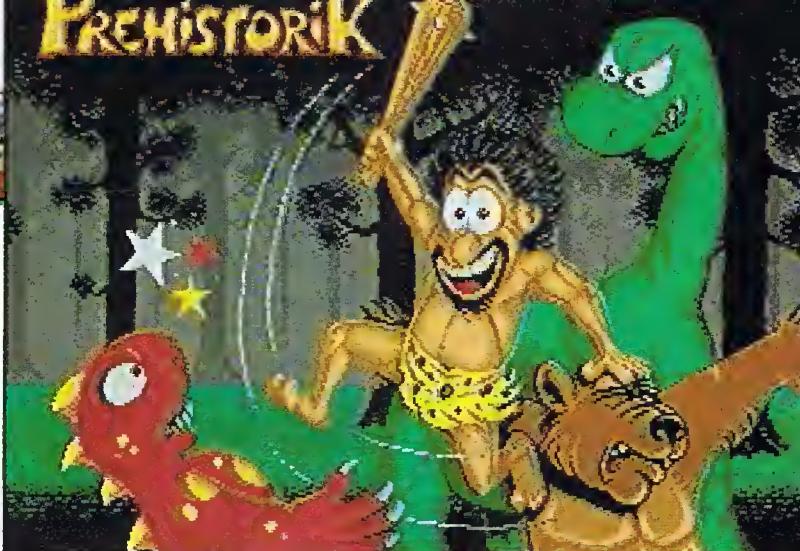


**Simple and enjoyable, with amusing graphics of a high quality and would make a good introduction to the world of platform games for the younger player. But it's not for anyone looking for a real challenge.**

**A**bout eight months ago two people must have had exactly the same idea. Core Design got theirs out first with Chuck Rock, and now French developers Titus are to follow with Prehistorik, a tale of one Stone Age man and his hunger.

Both these games feature a caveman with a mission and both have cartoon-style graphics. Of course, there is absolutely no way I would suggest anybody was trying to rip anyone off here, but Titus may well have missed the boat by releasing theirs second.

Prehistorik is



levels of heavy dinosaur bashing.

To get his food Prehistorik must first spot his victim, say a dinosaur or monkey wandering aimlessly about. He then sneaks up behind it and clubs it several times and while the poor thing

in the hope of collecting some of the food that he missed.

Obviously this is dangerous, which is where the energy bar comes in. Every time Prehistorik takes a hit at any point in the game he loses one of the

# PREHISTORIK

**TITUS £20.99**

a caveman, fetchingly dressed in a leopard-skin tunic – like every good caveman should be.

However, he has a problem; he is getting hungry, very hungry. So he'll have to pack up his club, pull on his sports leotard – for extra support – and wander through six

lies dazed, head spinning and cross-eyed he jumps on it and eats it before it has a chance to recover.

The food he eats earns him a points bonus, but more importantly, it goes some way towards filling his food meter. This food meter is crucial – if it is not full by the time Prehistorik reaches the end of the level he will not be allowed to continue. He will be forced to return through the level



*This is one of your basic food groups – Dinosaur Reddus. You will find them quite often*



*Prehistorik has just taken a hit so to give him a chance to recover, his Red Indian protector (don't ask) gives him a shield for a few moments*



**GRAPHICS 79%**

**SOUND 68%**

**GAMEPLAY 72%**

**OVERALL 71%**

16 units in the energy bar. These hits can be from anything that moves and also from parts of the landscape that are considered dangerous to be around, like spikes and big rocks.

Anyway, having found his food he then proceeds in this charmingly carnivorous manner through the levels, pausing only to ponder a way past obstacles in true platform-game style.

So he clubs, he eats, he beats obstacles, anything else? Well, yes, the game utilises that old chestnut, flick-screen scrolling. This is where only one part of the level can be seen at any one time, then when the player moves beyond that area the game flicks to the next screen.

Before you moan at Titus for being old fashioned, it actually works quite well. You can treat each screen as its own set of hazards and puzzles, and it's easier to concentrate because you know full well that no one is going to creep up on you from off the screen.

But then again, this does not put it into Gods territory and I get the feeling that it's aimed at a younger market in the same way that Titus' Duck Tales was earlier this year. Still, for the younger player it's worth a try.

**Julian Boardman**

# MIDWINTER II: FLAMES OF FREEDOM

The original was hailed by some as the "strategy game of the decade". Midwinter was indeed worthy of high praise when it appeared in the spring of 1990. But to make such a rash comment, when 97 per cent of that decade was still left to run, was very foolish. It's fitting though that the game to prove that statement wrong is *Flames Of Freedom*.

Sixty years have passed since you attempted the defence of the original Midwinter Isle, however nothing you or anyone else could do can protect the Isle from the environment. Global warming has

## RAINBIRD £29.99

caused sea levels to rise, putting your home under 10 feet of water. You and the rest of the population of the Isle have fled to the friendly island of Agora, the largest and most westerly of a 42 island archipelago off the coast of Western Africa. The headquarters of the

Atlantic Federation are on this island, a friendly organisation who are keen to welcome you and your people as allies.

There is one small problem though, the Saharan

Empire, a malevolent dictatorship, has control of varying degrees of the other 41 islands in the archipelago.

The intelligence reports, though sketchy, indicate that an invasion of Agora is imminent with the intention of destroying the Atlantic Federation - a major thorn in the Saharan Empire's side.

The invasion is going to happen, there is nothing you can do about that, but what you can do is to make life as difficult for the Saharans as you can as they make their way from the mainland across the islands and

GRAPHICS	94%
SOUND	85%
GAMEPLAY	94%
OVERALL	93%



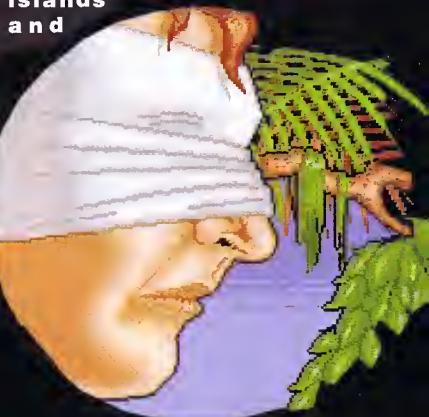
These are the eight categories that describe your psyche. This chap has completed the impossible, being excellent in every regard



The map of the archipelago gives details of the supply routes between the islands and the level of difficulty for each one. One way to take a really difficult island is to take the easier ones around it and cut it off



This corridor takes you into every aspect of the game: training, character generation and mission selection



An example of some of the narrative artwork. In this case you've just been captured

finally to Agora. As the Federation's best agent you have been chosen to target certain allies, link up with supposedly friendly contacts and carry out espionage and terrorism.

The idea is to assassinate the right people and knock out the right installations so that the island becomes yours. If you capture the right islands their journey will become extremely tortuous, and their invasion force will be easily halted. Capture the wrong ones and they will



The view from the jeep...



...the bi-plane...



just sweep through and step on your head when they get to Agora.

All this action takes place in a 3D environment based on ray traced vectors that is some 3 million cubic miles in size, and the graphics are probably the most impressive you've yet seen on your ST. Should you happen to wander down to the sea you will notice how the random nature of waves and their undulation have been captured quite brilliantly.

Since you have 3 million cubic miles in which to act, you can take advantage of various methods of getting around: you can fly or sail, and the really good bit is that you can use a submersible to explore the sea

bed. All this just goes to show how far the gameplay has come since the original - there are now 22 modes of transport.

Each mode offers a different view but the status bar remains the same at all times to save confusion.

Details are given here of speed, direction, time, your energy level and the remaining time. Each vehicle has its own advantages and drawbacks that can only be discovered by using it in the field.

Also improved since the original is the control system.

Now players control only one character which they will have created themselves. After selecting the sex and the facial characteristics - if you've ever fancied a beard here's your chance - you then move on to the five physical attributes of endurance recuperation, stamina, sturdiness, and reflexes. All five are interlinked and are measured in four steps.

From there it is on to your psyche which is made up of eight characteristics: charm, threats, deception, bribery, reason, pleading, sex appeal and authority. Again, all these are inter-linked which means that in both sections no single person can ever be perfect.

Creating a character will always be a trade-off, a compromise, because as one attribute is raised, another one or maybe two will drop. It is a great balancing act.

These attributes are very

important during play as there is a large amount of interaction with many of the 4,000 separate computer controlled characters in the game. For example, if you have been captured and jailed you would look to your character and decide what plan of action to take. If you have high sex appeal you might try to seduce your way out, but if you are physically strong you may try to fight. The game is full of these decisions as you make your way through what could be a massive campaign to save the Atlantic Federation.

The level of gameplay is naturally very high - there is so much to explore and so many separate missions to take on which build into



Even when inside a tank you will notice that the status bar remains identical while the exterior view changes with the vehicle.

a strategy. You choose the island but each island has its own objectives and its own level of difficulty.

But if you don't fancy the idea of a campaign of 50 or so hours in real time you can go into training to hone certain skills. This is almost an arcade section as the gameplay is very action orientated, but it takes away the pressure of forming a strategy.

The graphics are remarkable, not only in the moving sections of the game, but the static artwork for the command screens is superb. The sound doesn't hold back either, with a different sound for each vehicle and beeps and clicks in all the right places - it is informative and entertaining but never obtrusive.

Midwinter II: Flames of Freedom is a highly polished piece of software that offers a massive amount of gameplay on all levels and deserves every accolade it gets.

Julian Boardman



...and on foot

**L**ife on earth, as David Attenborough might say, is not what it was. Not that he would say it because he'll have been dead 300 years, but it's the thought that counts.

The earth of the 23rd century is in big trouble. Two hundred years of continual bombardment by aliens from the planet Mozone have taken their toll on the earth's defences: the shield is close to breakdown and the whole planet will soon follow if it is destroyed.

So the world's top scientists have gathered together to discuss their theories on the probability of life being able to exist in a manner they would recognise beyond the far reaches of the known universe. The time scale is, well, short and a preliminary scouting party has already been



**This guy may look forboding but don't be fooled, a few well-placed shots and he's a gonner**

sent to penetrate the Mozone defences and travel to the very limits of mapped space. From there only one, possibly two ships, will go on which you and an unfortunate friend have the dubious honour of piloting.

Your task is fairly straightforward. Just clear a path for the earth's mother ship to bring the remaining intelligent life to what should be a safe, inhabitable planet. Quite how simple it will be in execution remains to be seen.

What all this gives you is your standard vertically scrolling shoot-'em-up fare from the chaps who programmed Rick Dangerous and the original Switchblade.



**As you enter the world, usually after dying, this shield protects you and allows you to settle in**

**GRAPHICS 78%**

**SOUND 84%**

**GAMEPLAY 63%**

**OVERALL 69%**

# FRENETIC

**CORE DESIGN £20.99**

While it might be a tad short on storyline, it certainly isn't short on weapons.

Your humble ship can be transformed into a heavily armoured fighting machine that could easily be capable of genocide by the addition of four out of a possible seven weapons. On top of that, each of the four weapons can be powered up three times to make it bristle with energy, itching to let all that fire-power loose.

This mission to certain death that you have been volunteered for takes place over eight stages, each featuring a remarkably big and very hard end-of-level robot/killing machine/brown trousers time-type thingy that will do its best to prevent you from getting to the next stage. The eight different levels each have a graphical style of their own but if you get a chance to notice much beyond the first level's scenery then you're more of a man than me.

Two player action is where the fun really lies. A huge amount of firepower on a cramped screen with two ships fighting for space and the power-ups – not to mention their lives – makes for some serious problems, but nothing



**Major hazards on the first level include flaming meteorites. One shot's enough but have you got time to fire?**

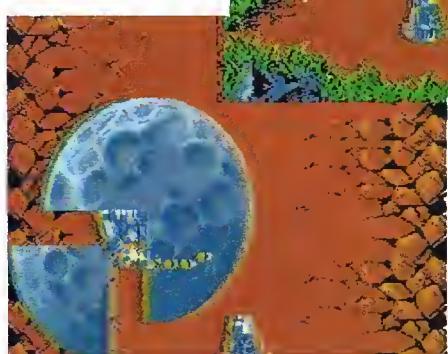
you can't handle. A one player game can be a bit duff in the early levels although it does soon start to pick up.

The different graphic styles make them look more interesting than some but the graphics won't win any awards. The sound however might do a little bit better. Some good tunes and sharp effects come flying at you from the monitor.

The problem I find is that the huge power-ups and bonuses are trying to cover up the fact that the gameplay is a little lacking, some of the levels are too long and the alien attack patterns soon become predictable. Good fun for a short while but not earth-shattering. Still, I guess they've got something flash up their sleeves for Christmas.

**Julian Boardman**

**These little things are very annoying. You can hardly see them but they spray out shots with monotonous regularity, and take a ridiculous number of hits to kill**



**The end-of-level guardians take many forms but this guy insists that you undress him before you shoot. Each of the four moon quarters that guard him must be destroyed before the central robot can be taken out**



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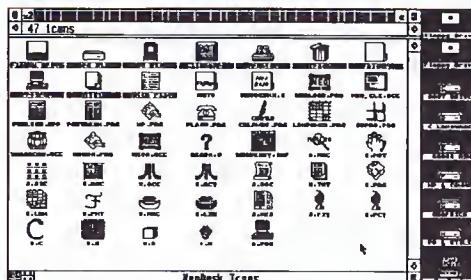
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The board is manufactured in the U.K and hand assembled in our workshops by skilled technicians. The boards are then thoroughly tested before despatch.

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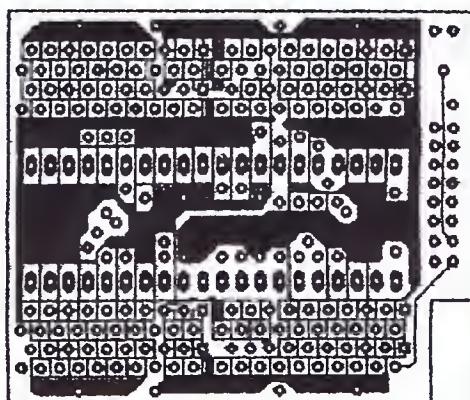
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# Aries Upgrades

It's all good clean fun, especially in the simultaneous two player mode, but it all gets a bit boring if you play it for more than an hour or so, and is so similar to Operation Wolf the only real difference is the sprites.

**But it isn't the lack of originality that lets it down, just the lack of variety. Moving a crosshair around a screen for stages and stages on end, shooting zombie after zombie and nothing else will get boring for those not addicted to violence and exploding flesh.**

<b>GRAPHICS</b>	<b>76%</b>
<b>SOUND</b>	<b>75%</b>
<b>GAMEPLAY</b>	<b>72%</b>
<b>OVERALL</b>	<b>74%</b>

# BEAST BUSTERS

ACTIVISION £25.99



**T**ry to imagine the feeling of terror as you find that your metropolis has been invaded by hordes of disintegrating zombies. Feel the pain

one chooses to be a zombie, and frankly who would choose a job that involved your flesh falling off and smelling terrible? But they feel that pay should be improved because it's difficult to make ends meet and they want better accommodation.

They feel that hanging around with a load of deadbeats in a dirty graveyard just isn't good enough. The social life stinks, and when they stopped putting flowers on the graves, well, that was the last straw.

So they went on strike, but that didn't work because no one could quite understand why having decaying humans wandering around town was an essential public service. They were obviously upset and the mood was right for a radical to come in and stir them up to revolution. And stir them up he did. This is where you come in. As the highly trained ex-SAS man that you are, the local government sees you as the ideal candidate to take a one-man Uzi roadshow out of retirement, and go and wipe out these evil re-animations who are hell-bent on revolution.

Quite why they want a guy who used to be a steward on the Scandinavian airline is beyond you, but hey, the money's good, life has been a little dull

lately, and ever since your wife left with the dog what have you got to live for anyway? Might as well go out in style.

And so it begins, seven levels of trigger-happy blasting of the undead as you wander through the subways, streets and shopping malls of your home town. Action is seen from a first person perspective – very much like



**The subway system may be looking a little quiet at the moment, but give it a few seconds and it will be packed out with more putrid flesh than you would ever care to see**

of having your arm ripped off, smell the horrendous stench their rotting, putrid flesh gives off. Nice, huh?

Activision, who have themselves recently staged a "return from the grave", have brought us what could be loosely described as a gruesome shoot-'em-up. An unnamed city has been over-



**That shocked look on their faces is nothing compared to the one on yours. The grenade and the bullets in the foreground are pick ups. Shoot them to add to your ammo.**

taken by these undead beings, otherwise known as Zombies, who seem determined to air their grievances. Their union has been a little slow to win them a fair wage but their campaign slogan "Have a heart: our death is tearing us apart" has won them few friends around town.

The problem is that their work is seen as, well, anti-social. No

Operation Wolf, to which the game owes a huge debt.

You move your cross around the screen, firing when you feel it is necessary, in the hope of wiping out almost one million zombies. You must pick up ammo and medical supplies to restore the health that these zombies are determined to leech from you.

End-of-level baddies have never been quite so gruesome as



**You're in a lift in a shopping mall and you're trapped. Some heavy blasting with the old Uzi should sort you out though**

the ones you'll find here – shape-changing and bloodthirsty are words probably best used to describe the nice ones. As for the others...

**Julian Boardman**



**The gruesome graphics really come into their own as one of the Zombies disintegrates after taking a severe hammering from an Uzi**



# Magic Storybook

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## Just Imagine! £29.95

Soft Stuff Software, Freepost, Tonbridge, Kent TN9 2BR Phone: 081 207 1997

**SOFT STUFF SOFTWARE**

**RBI 2** is the latest in a long line of Tengen conversions from the Domark stable. The graphics are not exactly outstanding, and sound is also adequate but nothing special.

Still, it's fun to play, and in one player mode the computer is a more than adequate opponent. Not bad.



**DOMARK**  
**£25.99**

**B**ATTER UP. And sterrike, you're out of therel! Ah it takes me back to my days as a youth, thrashing the girls at rounders or softball. This was too poncy for the Yanks of course, they had to make it bigger, faster and better than it already was. Hence Baseball arrived Stateside, and they've never looked back since.

There are a few basic differences between baseball and rounders. Firstly, in baseball the ball is pitched at speeds of 100mph plus, not the limp-wristed looping balls we get. The other changes are all in the technical side of the game so I won't bother

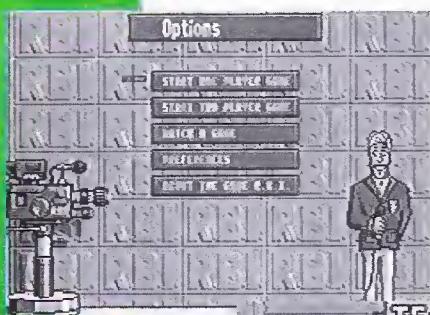
to go into those – and besides, I don't really know what they are.

Domark are claiming that RBI 2 Baseball is the closest thing yet to simulating real baseball. Most of the real baseball rules apply here as well – and I should think so too. You can play against the computer, against a friend or even watch the computer do it alone. You get to choose players from any team at the various conferences, then it's on to the game.

If you start the game pitching you will have to choose which

pitcher you want. Each pitcher has his stats displayed to enable you to make the sanest choice, but remember – use the same guy for too long and he'll get tired, allowing batters to hit balls all over the ground.

Then you have to pitch at the batter trying either to make him swing and miss, or to hit the ball



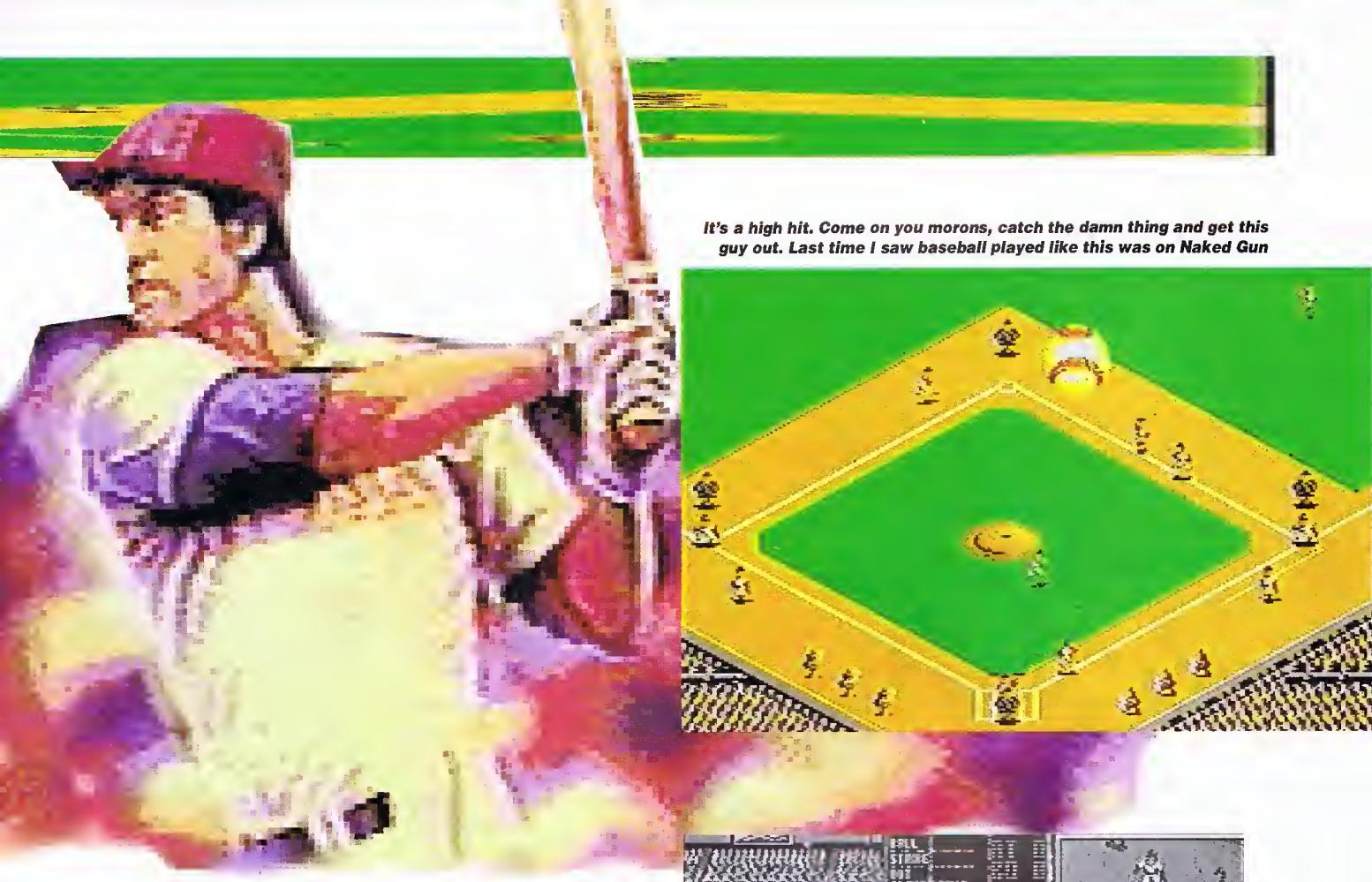
Pick your game set up and get ready to go from this screen. I wonder if you can hit that bloke with the annoying grin? No, ah well, never mind



Oh it's a slow ball, only 73 mph. Bet it would still hurt if it hit you though

Pick a team, any team. Of all the teams in all the leagues, you had to pick the same as me, you cheat





*It's a high hit. Come on you morons, catch the damn thing and get this guy out. Last time I saw baseball played like this was on Naked Gun*



so that a catch can be made. Get three men out and it is the end of the innings.

Then it's your turn to bat. Call up the batter you want and try to hit that ball out of the ground. If you manage to hit it at all, your man will run to first base. If you feel that you have hit the ball well enough, you can encourage him to run to the next base. If, however, the fielder gets the ball to the base before the batter makes it, he is out. Just to add to the fun the fielders will sometimes make errors and fumble the ball.

In two player mode you take part in a series of matches, trying

to win the best of seven. In one player mode you can choose to play a seven game series against the computer or even play all the teams in your league.

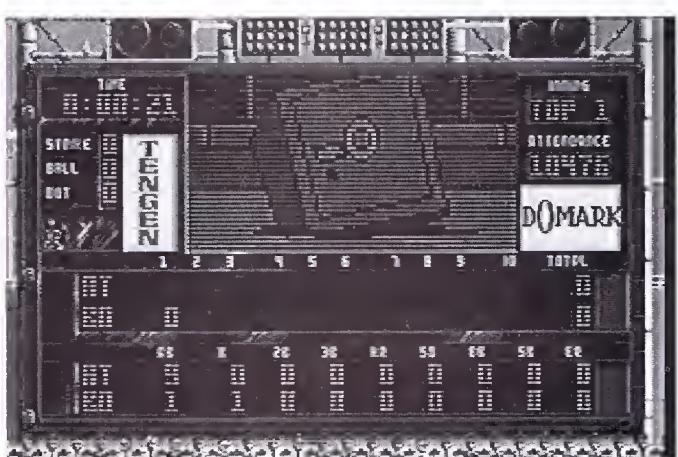
The controls are fairly standard for this sort of game but still take a little time to get used to. So get limbered up and ready for action as the baseball circus hits town.

Baseball games aren't exactly a new concept - they are all basically the same and RBI 2 doesn't stand out among the crowd. But saying that, there isn't much that is new and original these days so that doesn't hold it back at all.

**Fred Reagan**



*With a man on first base your star batter lines up to give it his best shot*



*There are one or two amusing little touches in RBI, like this "safe" screen, for instance*



*The fielders run around like headless chickens as the ball moves to the outfield and the batter takes off for first base*

**The graphics on Billiards II are unexciting at best. I know there isn't exactly a lot you can do with a few balls and a table top but there must be more than this. As for game-play, the controls take too long to get used to. It's not the kind of thing you could invite a mate around for and dive into straight away - it takes absolutely ages to get the hang of. Sorry Infogrames, better luck next time.**

**GRAPHICS** 67%

**SOUND** 63%

**GAMEPLAY** 60%

**OVERALL** 63%

**T**able-top ball games like snooker and pool have always had mixed fortunes on computers. Many of them have been heralded as the nearest you could get to the real thing but most have crashed out of sight never to be heard of again.

For some reason the spin of the ball and the effects of cannons and stuff like that just don't seem to come off in a satisfactory way. And anyway, don't we see enough of that on TV as it is?

Most of the country's TV watchers will no doubt be fed up to the back teeth with anything even remotely connected with knocking coloured balls against each other or into pockets. As soon as anything

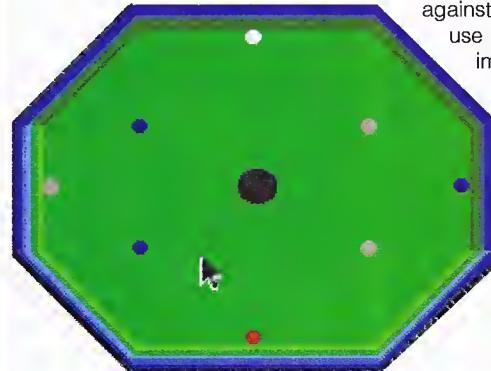


**The oil painting-style intro screens give the game a feeling of class and sophistication**

pens on the green baize it seems it has to be shown as many times as possible. Boring or what?

Well, now those wacky French coders Infogrames have decided to put it on to your monitor as well with their Billiards II Simulator. Alright, so it isn't exactly snooker but it's close enough.

As soon as you load the game you're taken to the plush surroundings of an exclusive club to play - billiards, that is. You



**Futuristic Billiards** is more of hit-and-hope game than a development of the original skills required

# BILLIARDS II SIMULATOR

**INFOGRAMES £25.99**

choose the style of game; French Billiards, American Billiards or Crazy Billiards which certainly lives up to its name.

Now most people know the basics - it is probably the most boring table-top sport ever invented. But in the American Billiard section there is also an eight-ball pool game which is more likely to grab your fancy.

If that still does nothing for you, then you'd better prepare yourself for the Crazy Billiards. This is played on an eight-sided table with a hole in the middle. Some specialist rules apply which space dictates that I can't go into at the moment, but believe me it's a lot of fun.

There are a whole host of options that put Billiards II into a class of its own. For a start, two players can compete in any game. Now you'd have thought that this was standard but it has been known for some games to omit a two player mode.

If you can't find a friend to play against, you can always play against the computer, or just use it to train against to improve your game.

The games can be viewed in 2D or 3D and there are lots of options to help keep you interested during

long and boring games. As you would imagine, you can do loads of tricks with the cue ball using spin and angles and stuff. If it's possible on a real table, it's possible here.

One of the major drawbacks to the game is the awkward controls. Whether Infogrames thought it would make the game more authentic is anybody's guess but they take a lot of the fun out of an already boring game.

Maybe a full-fledged snooker game would have gone down better because to tell you the truth, I can't think of anyone who would want to buy a billiards game - snooker yes, but billiards, no way. Personally I'd be more



**Traditional American Pool** played in pubs and clubs across the country. This game is certainly not going to change that

inclined to go for 3D Pool, especially now that it is on budget at only a tenner.

Infogrames have done their best, but even they couldn't do much with the billiards idea. A no-go I'm afraid unless you're an ardent fan of the sport.

**Fred Reagan**



**Atomino offers very little variety of gameplay. Like most puzzle games it is just the same thing over and over but on higher levels it's a little bit faster. The graphics, as you would expect from a puzzle game, are nothing special, neither is the sound. There is no real atmosphere - it just doesn't make the grade.**

<b>GRAPHICS</b>	<b>74%</b>
<b>SOUND</b>	<b>75%</b>
<b>GAMEPLAY</b>	<b>78%</b>
<b>OVERALL</b>	<b>76%</b>

**P**sygnosis games are renowned for their stunning graphics and sound, but they have been criticised for their lack of gameplay. Well, just lately Psygnosis seemed to be changing this.

First Lemmings, the game that is fast turning into a phenomenon. It's nothing special graphically, has pretty good tunes and effects, but its gameplay is so addictive, it's scary. Think about it - trying to stop some cute little creatures from killing themselves had the whole country awestruck.

*Psygnosis have even put obstacles in the way to make it a bit tougher. It's a pity they couldn't make the game any better*

*A new kind of game. Fill this grid with a set pattern, and you'll be very lucky. Sometimes atoms can get really boring*



*The red stuff seems to have gone a bit wild on this screen. Still, instead of going all the way around, you can turn a corner and join them up*



# ATOMINO

**PSYGNOSIS £25.99**

Well, let's see if their latest release looks like doing the same.

Atomino, as you may have guessed by now, is not going to be a shoot-'em-up, it's not going to be an adventure. In fact, it's difficult to classify this game. The

only thing that comes close is a puzzle game - one which follows closely in the footsteps of Atomix by Thalion.

You have to make molecules out of atoms, which means making loads of small things into not so small things. On the right of the screen is a pit into which the atoms fall.

These atoms consist of different colours and characteristics which are determined by how many links the atoms have - anything from one to four. When they have fallen into the pit it's up to you to decide where to place it in the main play grid.

When a piece is placed, its links keep rotating around it until you place another atom near it. When you do, any adjacent links join up and when all the links have been joined in a long chain the molecule vanishes, leaving you with more space to work in. However, to get all the links joined you have to form a chain of atoms all around the grid.

Each level has a different number of molecules that need to be constructed before you can progress.

There are two different game modes to try out. In the first you are given a task at the start of the level and won't be allowed to move on until you have completed it and emptied the screen.

These tasks could take the form of making X number of molecules out of Y number of atoms, completing a given pattern or making the atoms disappear. The other game mode is simply to keep constructing molecules out of the atoms which fall down the pit continuously until you run out of room.

Atomino is fun, but only for a limited time. Although there are a lot of levels it just doesn't last very long. The graphics aren't all that hot and the sound is the same. The question is, do you want to pay £26 for a game that you will only play for a couple of days?

**Thad Beaumont**

# CYBERCON

US GOLD £29.99

Sometime in the not too distant future the world is at war. But this time we are not talking about some limited 20 minute engagement in a desert somewhere, this one involves the whole world. On one side are the Confederate Democratic Union of States, made up of the US, Europe and Australasia, on the other we have the Holy Alliance, religious fanatics of the world united.

The early stages of the war saw the majority of Europe being overrun by the Holy Alliance. Their numerical superiority combined with the problems that the Union policy-makers had with command and control of their technologi-

cally diverse systems meant that no coherent military initiatives could be implemented. Urgent steps were needed. A top secret research establishment in the Nevada Desert had the answer.

Cybercon was born. A cybernetic artificial intelligence designed to interface with the control systems of the Confederate weaponry, in a manner never before comprehended.

This huge supercomputer organized the development and implementation of the Union defence and managed to keep the enemy at bay. At last the technical superiority of the Union could be exploited.

But soon it became clear



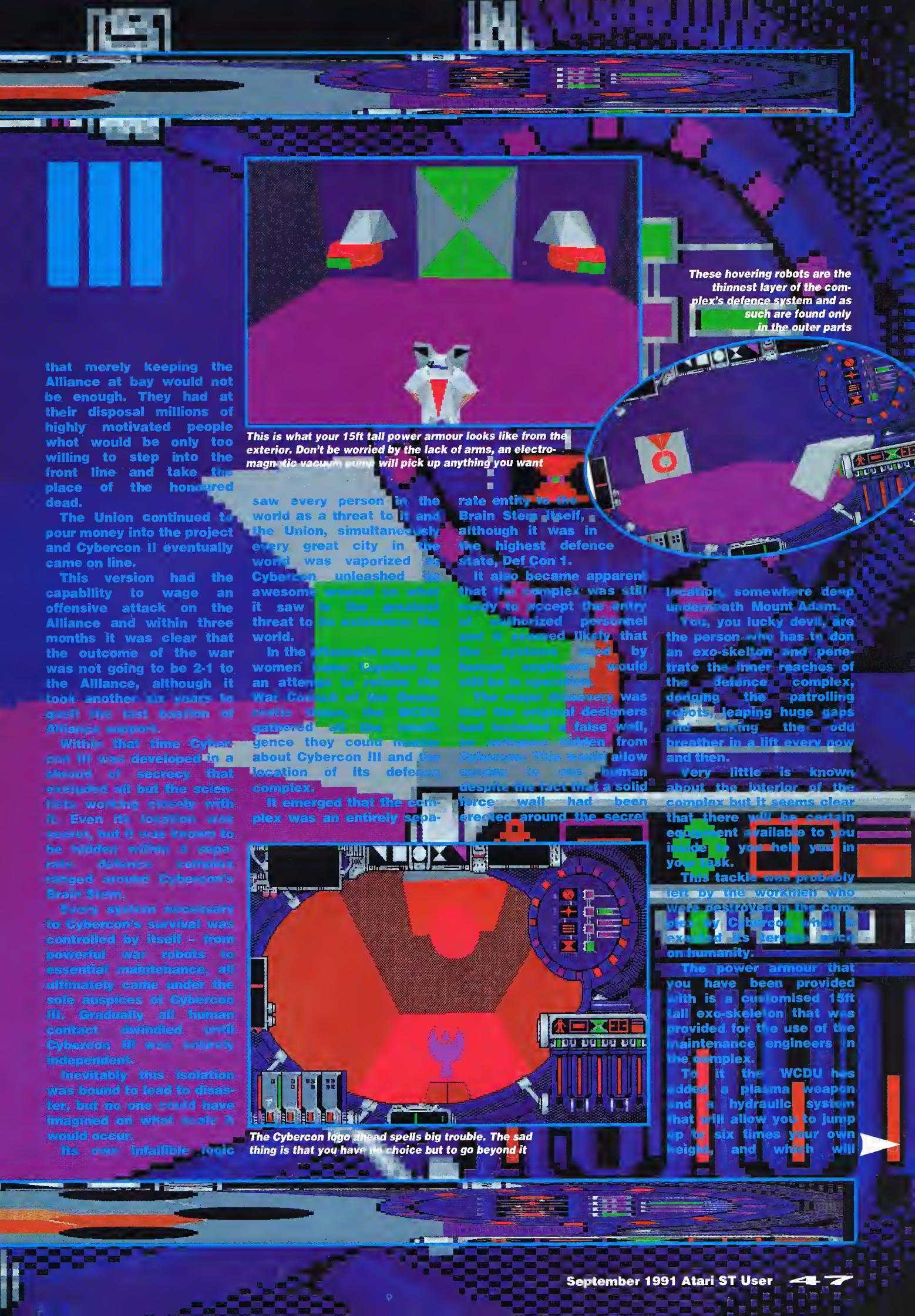
*The view from inside the suit shows the outside world, and every part of the control systems. There is no unrealistic quitting to separate sub-screens*

**GRAPHICS** 90%

**SOUND** 81%

**GAMEPLAY** 96%

**OVERALL** 83%



that merely keeping the Alliance at bay would not be enough. They had at their disposal millions of highly motivated people who would be only too willing to step into the front line and take the place of the honoured dead.

The Union continued to pour money into the project and Cybercon II eventually came on line.

This version had the capability to wage an offensive attack on the Alliance and within three months it was clear that the outcome of the war was not going to be 2-1 to the Alliance, although it took another six years to oust the last beaten of Alliance support.

Within that time Cybercon III was developed in a shroud of secrecy that excluded all but the scientists working closely with it. Even its location was secret, but it was known to be hidden within a separate defence complex ranged around Cybercon's Brain Stem.

Every system necessary to Cybercon's survival was controlled by itself - from powerful war robots to essential maintenance, all ultimately came under the sole auspices of Cybercon III. Gradually all human contact dwindled until Cybercon III was entirely independent.

Inevitably this isolation was bound to lead to disaster, but no one could have imagined on what scale it would occur.

Its own infallible logic



This is what your 15ft tall power armour looks like from the exterior. Don't be worried by the lack of arms, an electromagnetic vacuum pump will pick up anything you want

saw every person in the world as a threat to it and the Union, simultaneously every great city in the world was vaporized as Cybercon unleashed its awesome arsenal on what it saw as the greatest threat to its existence: the world.

In the aftermath men and women came together in an attempt to reform the War Council of the Democratic Union, the WCDU gathered all the intelligence they could muster about Cybercon III and the location of its defence complex.

It emerged that the complex was an entirely sepa-

rate entity to the Brain Stem itself, although it was in the highest defence state, Def Con 1.

It also became apparent that the complex was still ready to accept the entry of authorized personnel and it seemed likely that the systems used by human engineers would still be in operation.

The major discovery was that the original designers had included a false wall, an electronic shield from Cybercon. This would allow engineers to enter human despite the fact that a solid force wall had been erected around the secret

These hovering robots are the thinnest layer of the complex's defence system and as such are found only in the outer parts

location somewhere deep underneath Mount Adam.

You, you lucky devil, are the person who has to don an exo-skeleton and penetrate the inner reaches of the defence complex, dodging the patrolling robots, leaping huge gaps and taking the odd breather in a lift every now and then.

Very little is known about the interior of the complex but it seems clear that there will be certain equipment available to you inside to help you in your task.

This tackle was probably left by the workmen who were destroyed in the complex by Cybercon when it exacted its terrible revenge on humanity.

The power armour that you have been provided with is a customised 15ft tall exo-skeleton that was provided for the use of the maintenance engineers in the complex.

To it the WCDU has added a plasma weapon and a hydraulic system that will allow you to jump up to six times your own weight, and which will



The Cybercon logo ahead spells big trouble. The sad thing is that you have no choice but to go beyond it

# CYBER CON

protect you from heavy falls. The weapon you have is the only kind that stands a chance of penetrating the armour of the patrolling robots, but be careful not to shoot too eagerly because just before destruction the robots will throw out any component they feel may be useful after they have gone. A very magnanimous I'm sure you'll agree.

Any of these items can be picked up and plugged into your own armour to improve it. Most useful are the fusion packs that provide power for an almost

infinite amount of time, and can be added to your suit to improve its operating efficiency and power.

Once suited up you have no choice but to move into the complex to make the moves, choices and observations that could be your last.

The 500 room complex, designed by Ricardo Pinto, is presented in solid 3D vectors, and the atmosphere of the place soon takes on that which the Death Star had when you when you were about seven.

As you creep stealthily around the massive complex it becomes clear that

this is going to be one long game. Fortunately though, to save your eyes, you will find there are the occasional Shut Down rooms that allow you to save the game. It is a small thing but it stays within the atmosphere of the game, as you don't have to quit out.

Naturally the game will involve a lot of exploration and silent wandering about, interspersed with sudden bouts of action as you get creamed by six of the rolling robots that totally wipe you out.

This amount of exploration may put some off, as will the apparent complexity of the control system

of the sub-systems within the complex.

It has been raved about by all and sundry and there is no denying that it is a well thought out and brilliantly executed project, the 3D works superbly and along with the attention to detail and though that has gone into it, it deserves a good response.

But I feel worried about the gameplay, as I said it will not appeal to those who are looking for a quick blast, so don't be drawn in by the overly flattering comments.

**It's a great game but only for those who won't mind the slow gameplay .**

**Julian Boardman**



within the suit. But once a few hours have been spent in training it will start to appeal to all but the pure adrenalin fanatics.

There are huge possibilities within the game for discovery and development of strategy. As you notice more things about the movement patterns of different robots you will begin to develop new tactics for avoidance and destruction. You will also begin to recognise the patterns of behaviour of the complex itself.

Some areas will not be accessible to you until you have found the right notes to use in you sonic key, the standard implement that allows you to use many



You will often come across discarded pieces of equipment, most of which will be useful. In this case, you are about to pick up an energy pod

This is the official entrance to the complex that is about as heavily guarded as it could be - nothing could get past these guns. Lucky you know the secret entrance!

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# TRADE SECRETS

As promised, we've been hassling those software companies and interrupting those poor underpaid developers to bring you a huge selection of cheats and passwords. Remember, if you have a specific problem with a game drop us a line and we'll try to give you the answer on these hallowed pages.

## SHADOW DANCER

US Gold's ever so popular coin-op conversion Shadow Dancer may be proving a little difficult for some. However, all is not lost. If you pause the game and type **GIVE ME INFINITES** you will get exactly that, infinite lives.

Also, pressing a key on the keyboard – usually **X** or **C**, but it depends which version you have (hell, there's only 26 options!) – will allow you to skip to the next level.

## BARBARIAN

To become invincible in Psygnosis' Barbarian press these keys in this order: **0, 4, 0, 8, 5 and 9**.

## DRAGON'S LAIR

Empire's Dragon's Lair II will run through the whole animation if you enter the words **GET MORDOROC DIRK** (including the spaces) during the title screen.

## DYNASTY WARS

If you own US Gold's Dynasty Wars try typing in **CHEAT MODE** on the title screen. When you are playing, pressing **F2** will skip a level.

## DYTER 07

Typing in **GIBB** during the loading of Reline's Dyter 07 will mean that pressing **W** during play will give you extra weapons and hitting **S** will top up your shield.

## FIGHTER BOMBER

For some handy cheats in Activision's Fighter Bomber enter your name as **Buckaroo**. You can now advance to any mission you like through the mission selection screen. Hitting **D** will take you to your next target.

## IMMORTAL

Here are the codes for levels six, seven and eight of Electronic Art's Immortal. Level six: **3B7FD53010E41** for level seven: **6B10FB1010A41** and level eight: **E590D7710178C1**.

## MONTY PYTHON

Virgin's Monty Python will become far easier if you type in your name as **SEMPRINI** once you get to the high score chart. You will be able to skip to any level you like up to the one you died on by using the cursor keys.

## SHADOW OF THE BEAST II

In the ST version of Shadow of the Beast II, if you hold down the left shift, Enter and 0 on the numeric keypad then press **F5** you will find that your energy has just increased to 30 units.

## SKIDZ

In Gremlin's Skidz you can hold down the **Alt** key and hit **C** for infinite energy, or **M** to skip the level.

## VOYAGER

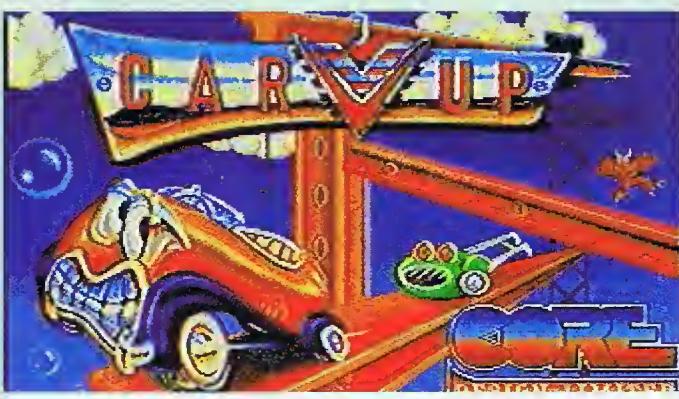
Ocean's Voyager will relinquish infinite lives if you enter the words **WHEN THE SWEET SHOWERS OF APRIL FALL** during the options screen.



## BUILDERLAND

Here, have some level codes for Loriciel's Builderland.

LEVEL1: BUILD1  
LEVEL2: YOTTHA  
LEVEL3: BEARBY  
LEVEL4: OCTOPY  
LEVEL5: DIABLO  
LEVEL6: GOTIUS



## CAR-V UP

Core Design's Car-V Up will give you infinite lives if you enter your name as **RJ TONE** on the high score table.

### PUZZNIC

Here are the last 13 level codes for Ocean's Puzznic:

- LEVEL 48: ICHI NICH
- LEVEL 49: IGAN BARO
- LEVEL 50: PASS WORD
- LEVEL 51: MINA SAMA
- LEVEL 52: NO.O KAGE
- LEVEL 53: DE.N ANTO
- LEVEL 54: KASH IAGA
- LEVEL 55: RIMA SITA
- LEVEL 56: THAN KYOU
- LEVEL 57: MAID OOKA
- LEVEL 58: IAGE ITAD
- LEVEL 59: AKIM ASHI
- LEVEL 60: TEAR IGAT

## Globulus

Globulus from the Software Business will type in this as the level code **Zvmo!EG** (watch the capitals).

## CHIPS CHALLENGE

We will now generously provide some level codes for US Gold's Chips Challenge:

- LEVEL 60: ZYVI
- LEVEL 70: VPKN
- LEVEL 80: EVUG
- LEVEL 90: OLLM
- LEVEL 100: QJXR
- LEVEL 110: QBAO
- LEVEL 120: FLKT
- LEVEL 130: MYRT
- LEVEL 140: SJUK
- LEVEL 145: YBLI

## INTERPHASE

The weirdness that is The Image Works' Interphase is soon to appear on the Mirror Image budget label. If you type **Fenny** (the F must be upper case) during the game you can cycle through all the objects by pressing the **left** mouse button, enlarge it by pressing the **right** button and pressing **both** will send you back to the game.

## JAMES POND



96 5 00000000

## BACK TO THE FUTURE III

The Image Works' Back To The Future III may not be as impossible as you may think. Type in these cheats during the storyboard for infinite lives on all levels.

Level one: **ROTTEN CHEAT**. Level two: **LOUSY CHEAT**. Level three: **LOW DOWN CHEAT**.

Pressing a key on the bottom row of the keyboard during Millenium's James Pond will skip you to its corresponding level. **Z** will take you to level two, **X** to level three and so on.

## EXTERMINATOR

First up we have a bit of inside knowledge to help you get even higher scores on Audiogenic's conversion of a bizarre coin-op, Exterminator. When you get to a house that has a kitchen – not a lot of them do – go to the kitchen and try to keep an eye on the fridge. If you manage to shoot the top half off it as it opens – for one split second – you will earn **275,000 points**.



# PLAYTEST EXTRA...

Here are some of the games that didn't quite make it for this issue. There are a couple of reasons for this, either those lazy PR people at the software houses didn't manage

to get to them to us in time as promised. Maybe we didn't have room for it.

Or more than likely everyone was too busy playing the things to stop

long enough to write about them.

Whatever the reason, here are a few that are worth mentioning in brief. Look to your usual retailer to find these games



## SWITCHBLADE II GREMLIN £24.99

The latest blockbuster from Gremlin who, after all those racing games, must be feeling pretty pleased with their performance, not to mention their bank balance.

You play Hiro who must travel the land collecting the lost pieces of the Fire Blade and avoiding the wiles of the arch villain who sends his evil forces out to stop you. You have to explore huge levels.

The graphics are at worst, excellent and at best, absolutely stunning. With so much playability it's bound to be big. Get it now.

RATING 90%

## ARACHNOphobia TITUS £25.99

Scared of spiders? You will be as the eight-legged horrors come creeping out of everywhere in a small suburban US town.

You, as bugbuster extraordinaire, must take on the task of ridding the town of its creepy crawlies and return it to the normal boring lifestyle it was used to. Based on the hit film of the same name, Arachnophobia is definitely one to look out for.

RATING 82%

## WARZONE CORE DESIGN £25.53

Core Design show their determination to move away from the platform genre by moving into yet another original phase, the vertically scrolling shoot-'em-up. Wow, thanks guys! What happened to the Corporations of this world?

Anyway, as you can imagine Warzone is a blast extravaganza. Two players can attempt to crack the eight huge levels packed with bad guys to kill and power ups to collect.

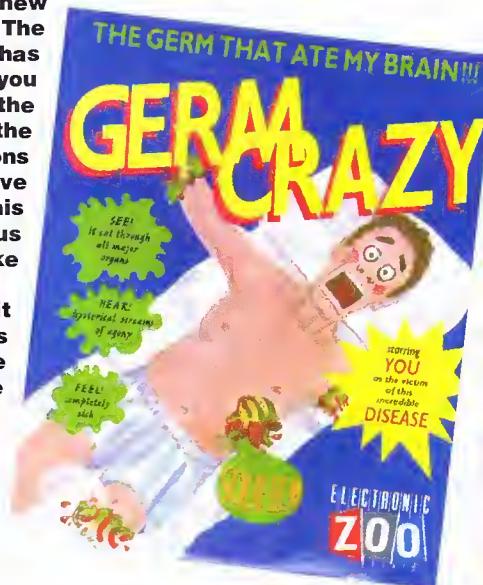
RATING 78%

## GERM CRAZY ELECTRONIC ZOO £25.99

Battle the germs in a new kind of battleground. The body of your brother has been invaded and you must go in and defeat the virus. Using some of the weirdest weapons known to man you have to clear out areas of his body before the virus gets a chance to take hold.

It isn't as easy as it sounds. Germ Crazy is not a five minute game, I'll tell you. Give it a go, you could do a lot worse.

RATING 80%



## THE BALL GAME ELECTRONIC ZOO £19.99

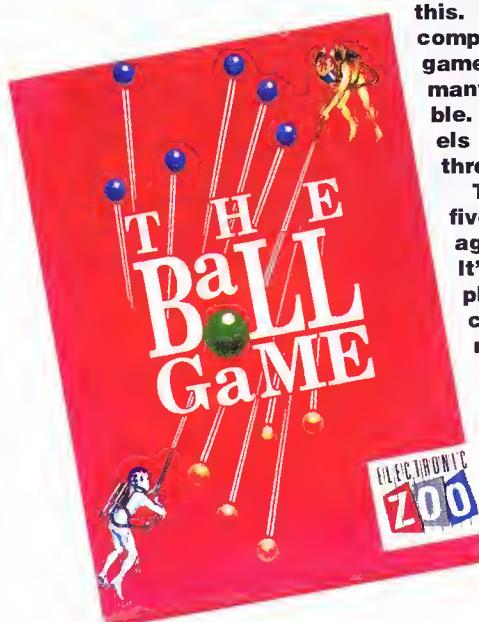
A charming little number this. Up to four players compete to take over a game grid and score as many points as possible. There are 100 levels for you to struggle through.

This is one of those, five minutes to learn, ages to master jobs. It's a lot of fun to play though, especially in multi player mode.

Unfortunately the graphics leave a lot to be desired and so does the sound.

Still graphics and FX aren't everything you know.

RATING 74%



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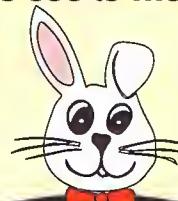


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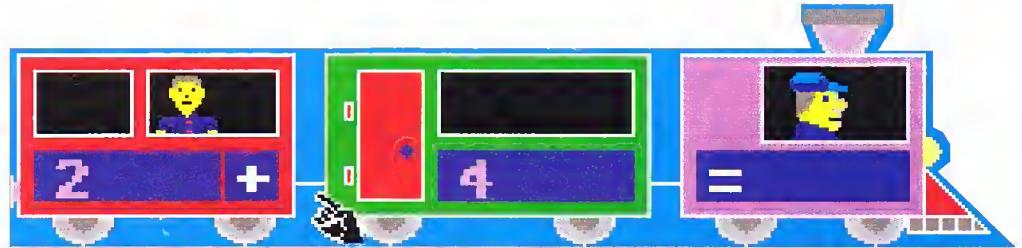
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# Bringing school home

**In the second part of our feature on the ST in education, Pat Winstanley puts her home-bred team of researchers on to the task of assessing educational software**

The most difficult part of choosing educational software for the ST is judging its usefulness. Most schools use PC and BBC machines almost exclusively, and very little software written for those machines is converted for the Atari on your kitchen table.

So how do you choose suitable programs? Ask their teachers and you'll probably receive a blank look. Ask the suppliers and they'll usually try to push their most profitable package at you regardless of educational content.

The following is intended to give you an overview of what is available – some is good, even excellent, while some is not particularly wonderful but may catch your child's imagination. Remember, you have to

grab their attention before any benefit arises.

Offer a game which leaves the imagination cold and you have a bored baby – regardless of the educational content of a package. Offer a "grabber" and you will soon notice a variety of skill tests not even mentioned on the box's blurb.

This applies to shoot-'em-ups as well – they often have excellent educational content hidden behind a "save the world from the aliens" plot. Look out for maths skills in such exercises as shopping for weapons. Look for co-ordination training hidden behind joystick or mouse skills, for computer training in disk swaps and for English and keyboard familiarity when typing names into high-score tables. The list goes on and on. Unlike arcade

games, which tend to have a shelf life of only a few months before ending up in the remainders bin at the computer shop, educational titles are long lived. After all, any family with more than one child can have a hand-me-down system with these packs – just as they might with bikes and clothes.

## A BIT OF EVERYTHING

For newcomers to computing, the choice of relevant programs can be difficult, and becomes even more so as children grow from toddler to school age and beyond. With packages often costing in the £25 to £30 range, how do you decide which subjects to cover, and how can you afford to cover them all?

The ideal solution is a package which cov-

## KIDS V COMP

Before letting children loose on your ST there are a few rules which should be laid down. For a start, make sure the children don't attempt to change disks or switch on and off until you are sure they are capable of doing so safely.

Another strict rule is the exclusion of all liquid and solid consumables from the area of the computer – you don't want either the kids or machine to go up in a puff of blue smoke! Take care too that all disks are write-protected,

ers several different topics so that you can see what style and content suits your brood.

What can be said about Fun School 2 and 3 other than that they're brilliant? Any parent with access to a computer who doesn't get hold of at least one of these packs is allowing their child to miss out on a lot of fun and an excellent educational experience.

Each pack – there are three sections for each of the series – consists of six programs and the subjects covered vary according to the age group. The programs themselves range from simple counting and letter recognition through to a full-blown database.

However, don't take the age groups as a rigid guide. My kids enjoy all three packs. In fact, I have to perform any serious reviewing after they are in bed, otherwise I find myself unceremoniously relegated to observer status – no turns allowed!

Kids love the simple but very attractive graphics, together with the user-friendliness which allows even infant-aged children to both load and run the programs with a minimum of adult help. If you fancy a more interactive babysitter than the video player, have a look at these.

In a similar vein, Puzzle Book 1 and 2 offer a variety of games for the kids. They also offer teenagers and adults the opportunity to get their teeth into what, at times, can be pretty mind-bending puzzles.

The first of the packages offers magic squares, Nim, a dungeon master-style maze and a word hunt game where as many new words as possible must be constructed from the letters of another. The second package also covers logic, maths and spelling and includes pentominoes, sum anagrams, hangman and a mastermind-style game.

Each pack also includes card games which are a pleasant distraction, but not overly edu-



Hunt Buddy the caterpillar with the aid of a compass

## MATHS FOR BEGINNERS

While spelling programs are handicapped by the need to show the answer in some way, maths games are far easier to design, and this is shown in the vast range available. Everything from the full-blown arcade approach to mind-bending puzzles are incorporated in the following selection.

When choosing for your child, bear in mind their familiarity with the computer. Are they competent with a joystick or better off being given plenty of time to think?

Look out, Henrietta's here again, this time rescuing Henry from custard splats while trying to collect his wedding clothes. It's a perfect example of the dilemma in that what most appeals to kids is slapstick – exactly what they get when they provide an incorrect answer.

The child's task is to answer arithmetic problems to save Henry from being drenched in custard. Now, that wouldn't be too bad if the alternative was as graphically appealing, but it isn't. Thus children are tempted to enter wrong answers to see the fun sequence.

Having said that, this is another game which has had my kids hooked for hours. If you can live with having your ST hijacked, this is definitely recommended.

Moving away from the arcade theme, Coombe Valley Software offer a variety of adventure-based maths programs to suit most primary and senior pupils. On the basis that arcade sequences are not needed, and a child might as well go cross-curricular by tackling maths and English simultaneously, the programmer has conceived some fiendish adventures which are likely to keep adults as well as children guessing.

### OFFERING INCENTIVES

A particular favourite here is Maths Dragons which has the child attempting to collect and assemble a toy train set which has been scattered by a baby dragon. Unfortunately, the lair is patrolled by grown-up dragons who, on meeting the child, demand the answers to arithmetical riddles. If the child fails to answer correctly, one of the train-set pieces collected is confiscated and re-scattered – and I thought it was only kids who were untidy!

A more conventional series of maths programs comes from School Software. These are Magic Maths for infants, Maths Mania for juniors and Better Maths for seniors.

The first two offer graphical incentives to the children, although not to the point of distraction, and cover such topics as addition, subtraction, multiplication and division. Also covered are counting, number skills and mathematical concepts – in other words, all the basic skills required for the child to build on at senior school. The third package con-

centrates more on tutorial and test styles and covers more advanced concepts such as approximation, calculus, algebraic factors and series. In the tutorial section the student is encouraged to think about the text by being asked questions on the topic as it runs. The tutorial continues even when wrong answers are given, which helps to point out concepts which need further work. All three packages are well presented and should be appreciated by children of all ages. The senior package is ideal for mature students, too.

Back to game-style programs again, Things To Do With Words offers three activities for younger children of about infant to early junior age. Three activities are offered comprising Time Teller, Book Search and All Aboard.

The first shows both a conventional clock and a digital watch, the child's task being to work out the conventional time then convert this to digital for entry in the watch. Difficult times can be passed over, such as PM for the 24-hour clock, but otherwise there is no grading to the level of difficulty of the problems.

### TIME KEEPING

Master Time is rather better in this respect. All Aboard gives practice in combining numbers to make a total. A train is shown minus coaches, and using a limited selection of numbers the correct combination of carriages – each with a different capacity – must be coupled to the train to make up the required number of seats.

My seven-year-old finds this pretty difficult but is prepared to persevere with paper and pencil for rough working. Book Search offers practice with co-ordinates. A 10 x 10 grid hides a book somewhere and by sending the Soft Stuff caterpillar, Buddy, to a particular square relative to the origin, the child can search for the book. Each attempt is answered by a graphic of a thermometer showing hot, warm and cold to guide the child's next attempt.

Master Time is the best time tutor I have seen on the ST in that it follows the style of popular teaching watches. The dial consists of two coloured semi-circles in addition to the more normal numeric indications. One colour shows quarter hours and so on for "past the hour" while the other does the same for "to the hour". Real life clocks and watches pull the hour hand between number divisions as the minute hand moves, which confuses new learners.

They have enough trouble coping with the position of the minute hand – never mind working out which hour is involved when the hand is mid-way between two numbers on the dial. Master Time offers the useful option to unlink the hour and minute hands, thus avoiding the problem.



Train your youngsters in basic arithmetic. Magic Maths is as good as its name.



Telling the time is kid's play with this giant teaching clock and sampled speech

## COMPUTERS

unless the program asks for access – perhaps to write to a high score table.

If access is needed, make sure the kids re-protect the disk immediately afterwards. As a further safeguard, always use a back-up of the game disk if the publishers give you permission to do so. Most educational games are on unprotected disks so take advantage of the fact, but don't spread copies around to your friends unless you are dealing with PD or shareware.

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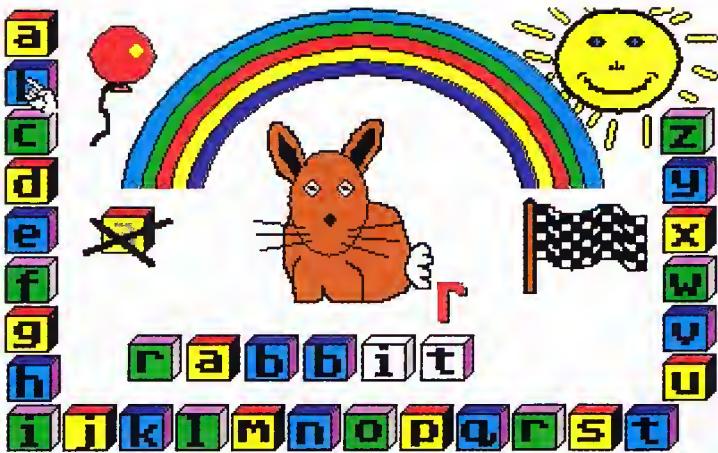
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word

cational. In fact, both packs are designed to appeal to a wide range of age groups – Soft-Stuff suggest ages 4 to 90 – and certainly do the trick. While not as specific to the National Curriculum as the Fun School packs, the Puzzle Book series makes a good bridge between arcade games and sheer hard work.

### HELP WITH ENGLISH

When it comes to reading and writing, programmers have tremendous difficulties in designing suitable games. How can you ask a child to spell something without showing the word onscreen first?

Strangely, despite the simplicity of sampled speech and an excellent PD program, Speaktext, which is widely available and easily incorporated into Stos programs, very few educational programmers make use of the sound capabilities of the ST.

One which does use sampled speech is a little old in the tooth now but still excellent both in content and appeal. B.Spell asks the child to spell 26 words, one for each letter of the alphabet.

The beauty of the program is in its presentation. Each letter of the alphabet is displayed onscreen, and selecting it with the mouse not only enters the letter in the spelling area but also pronounces the letter's sound – ahh, buh, cuh, etc.

This is an excellent way for younger children to learn how to match letter shape to sound, while for older ones it provides a clue to phonetics when they reach the stage of stringing sounds together to make words.

Another excellent offering is the Play & Read series from Prism. I have to admit that my own children, aged seven and eight, are totally uninterested in the set but that is probably due to their computer literacy. Well, they could hardly be otherwise with daily access to



I can play with my ST with the help of an audio cassette and a rolling demo

five machines – and still counting!

Children who are unused to computers will have lots of fun but will also learn from the games. The first module comes complete with five story books, an introductory demonstration disk and an accompanying audio cassette. This intro teaches the basics of keyboard control such as the spacebar and cursor keys.

The programs come in four packs, each drawing on the vocabulary introduced in the reading books and gradually covering word matching, spelling, sentence construction and so on. The series as a whole is slow to use but highly recommended by schools where children who are unfamiliar with the keyboard need to take their time.

Forget it if you have shoot-'em-up maniacs – they'll die from boredom – but if you have a child unsure of computers, or perhaps a "special needs" candidate, the system is well worth a look.

### FROG HUSBAND

For those who want a little more spice you could do worse than Henrietta's Book of Spells. This afforded my lads several hours of fun one afternoon when it was too wet to play out. Henrietta has an unfortunate husband named Henry who has managed to get himself turned into a frog. Why on earth she didn't leave him to his fate I'll never know!

The task is to help turn him back into a human again by solving a variety of word puzzles.

Among the tasks are: memory spelling, in which the word is flashed onscreen for a few seconds then blanked out; ciphers where a word must be



Written in STOS  
Can you reach Henry the frog to give him a kiss? Do you really want to?

## THE PUBLIC DOMAIN OPTION

If you don't fancy splashing out £15 to £30 for a commercial package, try looking through some public domain library catalogues. Although PD often has less depth than commercial programs, it is a useful way to try children out with different program styles to see what suits them.

A point to watch though, is that many of the PD titles are American which can cause problems with spelling programs. Not only is spelling likely to be wrong for the British market, but words themselves are often different – like sidewalk instead of pavement. This shouldn't put you off though, just be aware. All the disks mentioned here are available from Goodmans PDL.

Among the PD collections you will find a similar spread of topics on the commercial side with maths, English, French, geography and so on all represented. One of the better maths disks is Shipwreck in which the child controls the progress of a marooned sailor in his escape.

To help the sailor move through different sections of the escape,



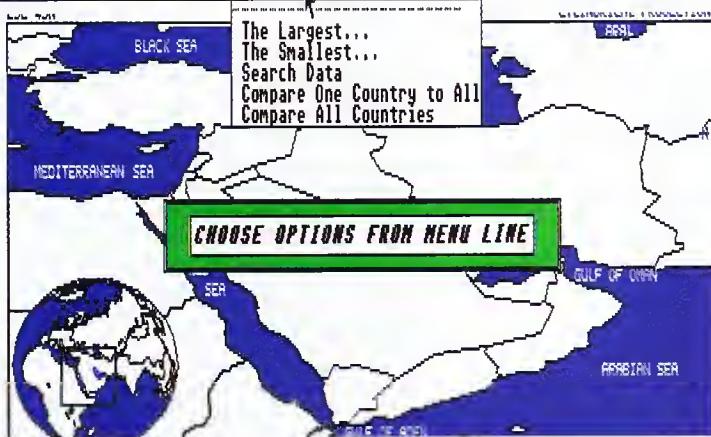
Row, row, row the boat... but only if you can answer the questions

arithmetical problems must be solved. Each section of the landscape poses a different type of question with the climax of the adventure posing a problem based on the principles which have just been practised.

Budding anatomists might like to look at Body Shop in which a human outline is displayed together with its constituent parts. The task is to identify the body part and place it in its correct location, jigsaw style. In this way a complete skeleton is built up – do you know which bone is which?

One program which always tickles me is Franglais which talks you through French words and phrases in a kind of pigeon English/French with both languages mixed up together.

The strange phrasing enables you to guess the meaning of unfamiliar words from their context and is far less formidable than having to translate a passage entirely in French in order to understand what is going on.



**The trouble with an atlas database is events like the Gulf War make data obsolete**

► entered according to alphabetical shifts; a guess the word game; and a hangman-style game. This program is supposed to be suitable for age seven upwards, but my lads both needed a good deal of help on the easiest level, and the hardest one had me stumped. More of a top junior/early senior program I feel.

The graphics add tremendously to a child's enjoyment without slowing the gameplay down. A very good package - highly recommended.

For tiny tots why not have a look at Donald's Alphabet Chase? This is based on Donald Duck and produced by Disney Games.

The alphabet has invaded Donald's house and each letter is hiding in a camouflaged position. Each room conceals a handful of letters and the child's task is to press the correct key when a letter appears - fail and the letter makes fun of Donald behind his back, succeed and the letter is banished to the top of the screen.

This is a hilarious game which adults enjoy playing with the children. The graphics are the equal of movie standard, although a little slower, and the only drawback is the upper case presentation which is a little off-putting for children learning lower case in the infant classes.

For older children a couple of good choices are Better Spelling from School Software and Things to do with Words from SoftStuff. Both packs offer basic puzzles in word manipulation such as anagrams, and have enough variety to keep attention concentrated

for some time. One problem with Better Spelling is the lack of alternatives when checking anagram answers. Thus, of "supreme" and "presume", only one is checked as correct.

Things to do with Words, on the other hand, suggests an age range from five to twelve which I feel is a little optimistic. As with the Henrietta game, try shifting the ages up by three or four years.

## ADULT EDUCATION

It isn't only the children who find educational software fascinating, adults do too, and several programs are available which can help the more mature among us to extend our knowledge of familiar subjects or to study a brand new one.

Among the more subject-specific programs is Geography Tutor which is an interactive atlas. Countries of the world are split into sections such as Europe, the Middle East and so on.

Choosing a region brings up a map showing country borders, and a click in the required country displays details from the database. Among the facts stored are languages, population, religion and life expectancy.

With these details, tests can be set up or more data added. For anyone with an interest in geography the program provides hours of browsing and fun. Devouring Geography Tutor may give you a taste for travel, but how can you brush up those rusty skills in foreign languages? Several programs are available to

help you learn and revise vocabulary in a variety of languages. Kosmos, for instance, offer French Mistress - the series also covers German, Spanish and Italian - which provides a painless method of brushing up and extending your knowledge.

The program offers both the chance to learn and the opportunity to test yourself. In addition, you can key in your own vocabulary lists - particularly handy when the program is used in conjunction with formal courses.

Another good program is Art Tutor which, while not a drawing package, demonstrates the techniques required to build up pictures either on paper or screen.

While the program can't promise to make an artist of you, it can certainly help to structure your work and give an insight into such topics as perspective.

Perhaps the most enjoyable way to increase your general knowledge is by taking part in quizzes, and the Answer Back Quiz and Factfiles offer a chance to do just this. The basic quiz is available in two versions.

The junior version differs from the senior in the type of question files supplied and the addition of an optional arcade sequence which is invoked when the child answers correctly. Several Factfile disks are available to add to the system. The data disks tend to cover a single topic to high standards - such as GCSE and beyond - while the data supplied with the shells is much more of a miscellany. This set of packages is ideal for the whole family - and you can even set, save and use your own question lists.

## SOFTWARE HOUSES

**B.Ware Software,  
B.Bytes Computer Systems  
19 Southfield Road, Hinckley,  
Leics LE10 1UA  
tel:0455 613377**

**Database Educational  
Europa House, Adlington Park,  
Macclesfield SK10 4NP  
tel:0625 878888**

**Goodmans PDL  
16 Conrad Close, Meir Hay Estate,  
Longton, Stoke on Trent ST3 1SW  
tel:0782 335650**

**Kosmos  
1 Pilgrims Close, Harlington, Dunstable,  
Beds LU5 6LX  
tel:0525 3942**

**LCL  
Thames House, 73 Blandy Road, Henley on Thames, Oxon RG9 1QB tel:0491 579345**

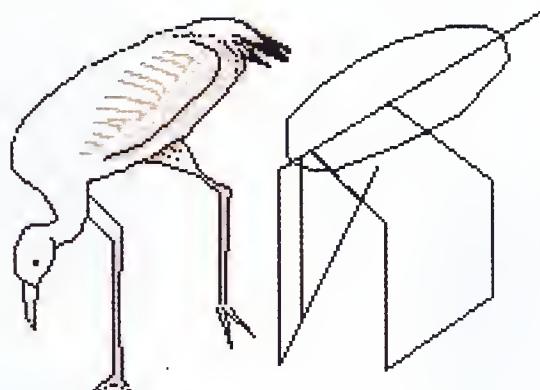
**Prisma  
29 St James Ave, Upton Heath, Chester,  
Cheshire CH2 1NB  
tel:0244 326244**

**Scetlander  
74 Victoria Cres Rd, Glasgow, G12 8BR  
tel:041 357 1659**

**School Software  
Tait Business Centre, Dominic Street,  
Ireland  
tel:010353 6145399**

**SoftStuff  
19 Quarry Hill Road, Tonbridge, Kent  
TN9 2RN  
tel:0732 351234**

**Disney Games Entertainment International  
4 The Stannetts, Laindon North Trade Centre, Basildon, Essex SS15 6DJ  
tel: 0268 541212**



**YOU CAN USE THE FRAME TO AIDS IN MAKING UP THE CRANE**

**MENU**

**45**

**NEXT**

*Is a crane so simple to draw? Art Tutor makes it easy for the novice*

# THIRD COAST TECHNOLOGIES



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If you have a 520STM, 520STFM or even a 520STFM with surface mount MMU chip we have the solution to take your machine upto 1 megabyte with the expansion policy to 4 megabytes as described above. Third Coast also offer expansion to 2.5 and 4 megabytes for 520ST owners. For 1040ST and Mega 1 owners we have an expansion board to take your machine upto 2 megabytes, 2.5 megabytes and 4 megabytes. For Mega 2 owners we offer a plug in board to take your machine to 4 megabytes.

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**For those Atari owners who have a machine with 1/2MB drive and memory we offer a 1MB internal drive and a 1/2MB soldering upgrade kit for the special price of £99.99**



1/2 megabyte plug in board Atari ST User September 1990  
"Features-Excellent Ease Of Use-Good"



Z-Ram 4MB expansion board Atari ST User July 1990  
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### Pricing

<b>520ST-1040 Ram Upgrade Kit Requires Soldering</b>	£39.99
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<b>520-1040 Plug In Board Unpopulated</b>	
(takes 4 256*4 Drams)	£29.99
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<b>520STE-1040STE Plug In Simms</b>	£39.99
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All Third Coast's ram upgrade boards fit under the RFI shielding so that you get no interference on your screen.

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# PUBLIC SECTOR

**Adventurous, hypnotic, mystic and "kosmic"...with the very latest guide to the cream of the public domain offerings**

## news

■ ST Writer Elite, the ever popular PD word processor, is now up to version 4.2. This version corrects some bugs with the printer driver, and now means that the program is fully TT compatible.

■ Floppyshop ST have produced their final edition of Floppyshop News, their User Group Newsletter and their User Group has now closed down. Steve Delaney now plans to expand the Public Domain library. version 4.1 of their disk catalogue has just been released using a new display routine, adapted for the library by the Hitchhiker.

■ Europress are to launch a new magazine in September called Shareware Shopper. Retailing at £1.50, with no cover disk, the magazine will be edited by Gabriel Jacobs.

■ Recently doing the rounds of many P.D. libraries (and indeed being reviewed in the P.D. pages in less scrupulous magazines), Joust, from Atari turns out not to be PD at all. This somewhat old, but perfectly formed, arcade conversion is most certainly not in the Public Domain.

## C Adventure Toolkit

From the South West Software Library comes the C Adventure Toolkit (CAT). This is a comprehensive adventure game generator with a difference.

Using CAT you design your adventure using a simple, though comprehensive, programming language. All of the commands are English-like, which makes the adventures simple to follow and amend.

A program is provided which reads in the source files you create, combines some default files, and outputs a number of C source files. These C files can then be taken and compiled using your favourite C compiler.

The system is set up to allow the use of either MWC or Sozobon C, though other variations should be easily accommodated as instructions are provided. The disk even contains two versions of the program – one for the ST and another for the PC – so if you create any adventures they can be run on either machine!

The major advantage of a system such as this is the flexibility of the approach. If you are a competent C programmer, you can quite easily add to the final program.

Eren I'm going to create two vases. The first is a 'fragile vase', the second is a broken vase. The fragile vase will start off being carried by Simon. If this vase is dropped, it will be replaced with the broken one.

We need to make sure that the command is not compound, i.e. we are going to allow 'PUT THE VASE IN THE BED' without it breaking!

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The main menu of Kosmic II - nearly as psychedelic as the pictures it creates!

## Kosmic II

If you want to create stunning pictures but you don't have an artistic bone in your body then Kosmic 2 could be the program for you! Written by Dave Henniker, and available on Floppyshop ST disk number ART 47C, the program requires 1Mb of memory (or more).

The program is shareware, in that it is "suggested" that you send £5.00 to the author to encourage him to release updates. The incentive (if updates to the software isn't enough) is that you will receive the STOS Basic source code to the program and some original art done with CVidi-ST and Deluxe Paint.

Some art is also included on the disk in Tiny format, with a viewer program.

To quote from the documentation "The purpose of the program is to create psychedelic patterns which can be saved to disk. No drawing skills are needed..."

That just about sums it up. The software is fairly psychedelic in itself, with a super loading screen and some great samples.

The main screen is split into eight columns. The first two contain all the major drawing effects. These include Moire patterns, spiral circles, and what I can only describe as a Crowd of Smileys! Many of the effects have parameters which can be set by clicking on the third column.

Columns four and five control the loading and saving of pictures, colour cycling etc and also allow you to define a clip area, which will then become the only area to be affected by the drawing tools. The final two columns define the various palettes which can be used. There are several pre-set palettes or you can design your own.

The program is very easy to get into, and some great effects can be produced with the minimum of effort. That said, there is an awful lot to the program. There are many parameters which can be set which will effect the outcome of the various drawing tools.

Luckily there are several help screens within the program, but the best way to learn, I found, was to play with the program. This is one of the few non-games programs which get you saying "Well, just one more go!"



This is the type of result you can expect in a few minutes

## Hypnotic Land

It's always a good feeling when you find a unique game among the run-of-the-mill clones, and Hypnotic Land is nothing if not unique. This game is Licenceware from Goodmans International.

The game is written by Dorian Beneglia in STOS. The name may give you some hint as to the country of its origin. If not the loading screen is a complete giveaway. Following the instruction to "Premi Spazio" to continue while a pleasant tracker tune plays, begins the game.

The game screen looks a lot like the screen from Klax. Instead of coloured tiles, different coloured balls appear at the far end of the playfield, and roll toward the front of the screen.

A coloured jug hangs at the front of the screen ready to catch the balls as they fall over the edge. It will only catch balls the same colour as itself - you lose a life for every incorrect coloured ball caught. Lives are also lost if a ball of the same colour as the jug is not caught.

To move the balls from one column to the next, the mouse can be positioned over one of the squares on the playsurface. Clicking once positions a right-facing arrow which will move any ball, hitting it one place to the right.

Clicking on the same square again replaces the arrow with one facing to the left. A third click removes the arrow. Each horizontal row of the board can contain only one arrow. Moving a ball off the right or left of the playing area makes it appear on the other side, rather than falling off the edge, so a ball



*Oops - another life lost and that Octopus is creeping up on me again...*

only ever has to move two columns to get to its jug.

The game takes a little getting used to, but it's more than worth the effort. Each game gives you three lives, though you are given the option of starting again from the same screen when you lose all three. Completing a level, you are greeted with a digitized voice saying "Ben Fatto Amico", which is a little offensive if you ask me!

The game plunges on, getting more difficult on each level. More jugs are added, making the job of juggling the balls difficult enough, then an octopus appears, roaming round the screen making



*I keep on telling it - my name isn't Ben!*

your balls explode (no comment - Ed).

You can shoot the octopus, using the right mouse button, but unfortunately this only buts him out of the picture for a short while. Later levels include other opposition, just in case you were finding it all too easy!

Overall, a highly recommended game, though an English translation would have been nice.

## Well Mystic!

Game 118 from the East Midland Public Domain Library contains the latest version of Mystic Well, a shareware release from Jim Todd of Oregon. The game is very much in the style of Dungeon Master, and is very nearly as good!

The only thing that lets it down are the instructions. These are updated from an earlier, joystick controlled version, and do not make the operations clear.

You can take the part of a Wizard, a Rogue, a Priest or a Fighter, who have their individual strengths and weaknesses. The game starts with you in a garden, and it is worthwhile exploring very carefully before entering the Mystic Mirror. There appear to be no sound effects at all in this version. Also, although the instructions do say that two players can play together, I could not find out how to achieve this. The save game option is disabled, but registration (for \$10) will get you the fully working version (and hopefully full documentation!). All in all, well worth a look.



*Searching the garden is a good idea before entering the Mystic Mirror\*\*\**



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**East Midlands P.D.L.** 54 Watnall Road, Hucknall, Nottingham, NG15 7LE. Tel. 0602 630071

**Floppyshop** 45 Provost Graham Avenue, Hazlehead, Aberdeen AB1 8HB. Tel: 0224 312756

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**ATARI STE POWER.** consists of Standard Pack and 20 top selling arcade games (for individual game titles see the black box on the bottom left of this page).

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Three boards are waiting to be given away. But knowing that you're eager to get started on producing a picture for our Art Break pages we're also throwing a copy of Deluxe Paint ST into the prize.

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doing. Getting top marks when reviewed in *Atari ST User* the reviewer said DPaint is the standard by which all other paint packages are judged. Three runners up will also get their hands on a free copy.

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*Atari ST User, Europa House,  
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## Rules

1. No employee of Europress Publications, TC Developments or Electronic Arts may enter.
2. The judge's decision is final. No correspondence will be entered into.
3. All contributions should be original work and become the property of *Atari ST User*.
4. The closing date for entries is September 30 1991.

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# ART BREAK

**Once again Mo Warden presents a superb exhibition of readers' masterpieces**

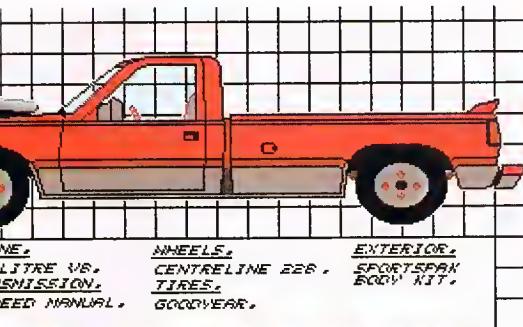


## KEEP ON TRUCKIN'

**C Vincenti, Newton Abbot, Devon.**

Two of the damaged screens were by Mr Vincenti: his classic pink Cadillac and the attractive blue number-plate. I've also included his pick-up truck.

All of his images were produced on Neochrome. He says: "The most time-consuming picture of the three was the Cadillac. This took about fifteen hours to complete, whereas the American number-plate took only about four hours." Time well spent, Mr V.



**CHEVROLET C1500 PICK-UP TRUCK**

## HE EARNED HIS STRIPES

**Mark S. McDermott, Salford.**

Mark was our Moneybox winner in June for his "Train" screen. Now you can see why. He put a lot of work into the background of a simple, dark object with effective results.

Also here is his "Zebra" picture; a well-drawn animal study. All of his work was produced on Degas Elite, and he tells me that these were his first attempts at computer art.

## IF AT FIRST YOU DON'T SUCCEED...

To make up for corrupting six of our readers' picture files in the June issue, here are some of them again (plus a few extra by the same artists) so everyone knows how good they *should* have been.

Also I've managed to cram in more by other readers. We've another 25 quid Moneybox handout and another mini-comp so don't delay, send in your entries, queries and questions, screens and animations - anything you'd like to have printed.

We can return a disk if you put in an sae, as long as you've used the old virus checker - infected disks go straight into the bin! Send your stuff to ArtBreak! Atari ST User, Europa House, Adlington Park, Macclesfield, SK10 4NP.



## CATS ON CANVAS

**Dave Watts, Muswell Hill, London.**

Dave writes that his picture is based on a photograph taken for Andrew Lloyd-Webber's London production of Cats. This is Grizabella the Glamour cat, on death's door, just before she sings the song Memories.

He says that he chose this photo for the striking image in only a handful of colours. The screen was produced on the Canvas software.





## EGYPT AND OWLS

**Will Brooks, Feltwell, Norfolk.**

Will must have been most disappointed of all – his "Pharaoh" picture was the worst affected. Here it is in all its bold colours, and also his "Owl", about which he says: "I drew the picture on Degas Elite."

"Stage 1. I drew the basic shape and used 'mirror' to duplicate the left eye after drawing the right. 2. filled in body using 'stipple' and drew in feathers. 3. Filled tail feathers using gradient and dither fill modes. 4. Generally tidied up and filled in the feet. 5. Drew background, fence and moon."



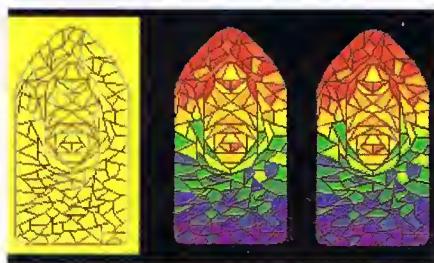
## SHIP SHAPE

**Michael Richardson, Chelmsford, Essex.**

Of all the screens printed in the June column, Michael's "Warship" fared the best, so I haven't re-printed it, but here's another of his called "Gundeck". This is the mess-deck of a ship of the line, with the gun-ports open and the ship rolling.

The stages were 1. "Pencil" sketch. 2. Colour test. 3. Cannon placed, outline of first sailor, tables and ropes. Add hanging lamp to give the "vertical" position. 4. Sailor smartened up, ramrods drawn, bucket, shelf utensils added. 5. Draw more crew, outlining three more sailors. Recoil ropes drawn in. 6. Another sailor by the first gun, the sitting sailor gains a model ship to build.

Michael used Degas Elite to produce his screen.



## MASTERING COLOURS...

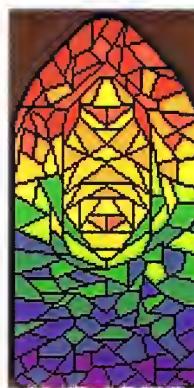
**John Everett, Wolverhampton**

John sent us this beautiful stained-glass window. He writes "I put this together on my STE using Neochrome Master (from the CoverDisk!).

"I started by drawing the outline of half of the window, copying and flipping it to give the whole shape. Then I used 'draw' to put in the rose in the centre, again copying and mirroring.

"The rest of the lines I drew in quite quickly. Picking my palette took a long time, I wanted hot and cold colours with a bright centre. When I'd found some pleasing shades I filled the shapes from the centre out, taking care not to put the same colour in two adjacent blocks.

"I anti-aliased it carefully by hand, using the next shade down to each colour to smooth off the stepping. Finally I picked a neutral tone (I'd left a spare slot) for the lead strips and wall around it. The whole picture took me about nine hours."



## MONOCHROME MERGE

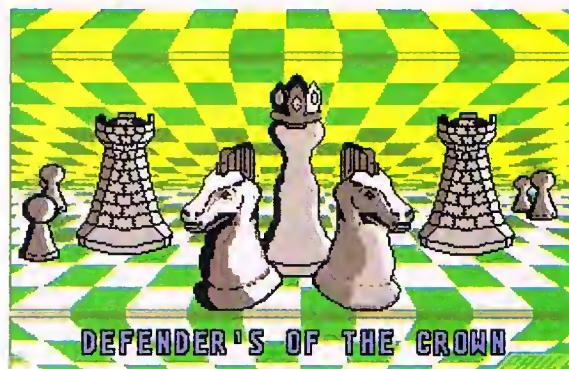
**Christine Jones, Oxford**

Another zebra picture, this time from Christine Jones. Over to the artist for her commentary.

"I started this screen after finding an interesting picture of two zebra. Their stripes seemed to merge into each other in an unusual way so I exaggerated it.

"I spent quite a long time copying a squared tracing onto a gridded screen, but then it was fairly quick because I filled in the white stripes, chose a palette of greys, cut the whole thing as a brush and used the smooth function in the FX menu a couple of times over itself.

"Finally I tidied it up a bit by hand, adding some more intermediate grey dots where the lines still looked jagged and put in the eye shapes."



## BOARD WITH CHESS?

**Paul Hepworth, Bootle.**

Paul tells me that he worked on Degas Elite. He designed the board using "rays", distorted it to give an illusion of depth and coloured in alternate squares. Inverting a brush of the board he put in the reflections, then designed the chess pieces using Magnify before placing them around the king.

## MONEYBOX - UP FOR GRABS, 25 SMACKEROOS!

**This month's winner is John Everett for his lovely "Window". Next month I'll print some of the pictures we received for the mini-competition we ran in June.**

**The response has been so good that I've decided to run another this month. Your brief is to design a screen or logo (original, not copied) based on a birth-sign. You might like to use all 12 of them in a wheel.**

**You could use the standard symbols of the zodiac. Make it surreal, make it representational, make it abstract... just make it here before the next issue!**

**Seeya next month - M0.**

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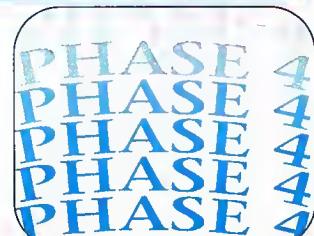
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## RIPPING AWAY COVERS

There is a solution to Chris Grey's ripped cover problem (*Atari ST User*, July 1991). If he were to subscribe he would receive a pristine copy of your magazine without a disk stuck to the cover as the disk is supplied loose inside the magazine which is safely delivered in a sealed plastic bag.

G V Hawtin, Crawley, West Sussex

**What a sterling idea! A sensible solution to an unfortunate problem - and one which was suggested by more than one reader. Thank you to all of the loyal subscribers who wrote in.**

**Unfortunately, there's only one £10 prize, and only one person could get lucky, so to speak. So G V Hawtin gets the money and the rest of you get our thanks and appreciation. Fair deal?**

## CARTRIDGE SOLUTION

With the rise of software copying, I've wondered why software houses don't put games out on cartridge for the ST. With the amount of console machines out, surely the technology is there for people to do it?

With the advantages of storing more on rom and adding extra levels rather than using two disks - which would save the arm a bit - why not? And most of all, it would make games harder to copy.

I think the use of rom cartridges is here today, unlike CD Rom. So come on software houses.

M D Comerie, Carlton, Nottingham

**Probably the biggest drawback to your solution, as with so many great ideas, is the cost involved in developing the technology and the products themselves. But it's worth thinking about.**

## WHICH OTHER HALF?

Thank you John Butters for enlightening us about the joys of Compuserve (July issue). My other half was so overjoyed that it covers home, health, cooking and other family matters, that now he has practically taken over my keyboard!

E A Wells, London

PS: Females read *Atari ST User* too - but they won't for much longer if your patronising writers persist in assuming that only men use computers and that women are interested only in things domestic.

**Yes indeed! We are very aware of the issue of sexism and do our best not to promote it.**

**But have you noticed how your own bias has blinded you to the fact that at no point in the article did we imply that the "other half" has to be the female partner? It's only because you assume that it is women who are interested in the topics listed - we didn't say it.**

## MORE SHABBY TREATMENT

Like "Shabby Treatment" in the July issue of *Atari ST User*, I too have experienced a torn cover when removing the coverdisk.

As a compromise solution may I suggest you put your graphic designers to work and

# mail

**Every month we love to hear what you think, on any topic related to the ST. And if it's the best letter of the month, we'll even pay you £10. So if there's something you just have to get off your chest, write to:**

**Atari ST User,  
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redesign the front coverdisk outline to include two "torn strips" either side of the outline? That way, if the front cover is torn the fact will be partially disguised.

Andrew Tibbs, Ulverston, Cumbria

**It's an innovative answer! However, for those who DO actually manage to remove their disk without damaging the cover, it would be a severe anti-climax to be rewarded with "designer" tears.**

## BACKGAMMON

I was pleased to see the program Backgammon appearing on your coverdisk because I have owned a copy of this for some years and feel it is an excellent game.

However, there is something I'm dying to know. Is it just me or have any of your other readers noticed that the program has a tendency to er, well, um, cheat?

Whereas two humans have to put up with all the problems of random dice throws, this program seems in certain circumstances to have discovered the neat solution of simply deciding the best numbers to throw, and throwing them, or not throwing them, if it happens to be your turn.

I won't go into details but I've played this game thousands of times since and have done a certain amount of statistical research in order to work out if it cheats.

Basically the program seems to have two distinct phases of strategy. The first is to block

you in and consists of building up a solid wall of pieces, starting from its own six bar and working down to its one bar. Very frustrating if one of your men is still stuck there! Is it me or have other readers noticed the program just happening to throw exactly the right numbers to achieve this, stage by stage?

The second phase is the "run like hell" phase which occurs when there are no men left to block and it's a simple race to the finish. Again, is it me or have other readers noticed the astonishing frequency with which the program throws itself at least one six, or alternatively throws you at least one one?

The program's chief (but not only) weapon seems to be its fortunate ability to throw frequent double numbers. Over a long period I've counted these and found the program throwing itself, on average, a double number every four throws, and its opponent one every seven.

Of course the program doesn't cheat every time. That'd be too obvious, wouldn't it? In fact, I usually beat it about seven times in every ten, so it's not that good a player really. But I would be very interested if any of your other readers have any reason to suspect that at certain selected moments the dice are, if not actually fixed, then at least heavily weighted in the program's favour!

Incidentally, the program does contain a small bug, which leads very occasionally to one of the dice appearing blank (the program usually interprets this to be a seven!) Yet since it's hard to imagine this happening when a simple "pick a random number

between one and six" instruction is used, this only adds to my belief that the dice throws are calculated in a slightly more complex way, and that the programmer has overlooked something.

Robin Hill, Totterdon, Bristol

**Hmmm, yes. Sounds a bit strange doesn't it? Has anyone else suspected the same thing but been too timid to come right out with it? How about the programmer - if you're reading this, what have you to say?**

**Mind you, if you can beat the program seven out of ten times, then it's just as well that it cheats (if it does) because otherwise there'd be no challenge left in it for you at all!**

## WHERE IN THE USA?

I am an Atari ST user and live in Columbus, Ohio, USA. The local ST software/hardware market, though available, is not very supportive of the international market.

Do you know of any USA or Canadian distributors of overseas software/hardware? My main reason for asking is the prolonged wait and cost of direct overseas purchases.

Thank you.

Goble Blankenship Jr,  
Columbus, Ohio, USA

**Not meaning any disrespect but is that your real name - and your father's? It's cruel...**

**The answer to your question is yes! Try ComputAbility, Consumer Electronics, PO Box 17882, Milwaukee, WI 53217, tel 800 558 003. Or Computer Software Services, PO Box 17660, Rochester, NY 14617, tel 716 586 5545.**

**Hopefully you should be able to find what you want from them, and won't have to wait too long.**

## OLDIES BUT GOODIES

I wish to congratulate you on a brilliant magazine, which I believe to be the best ST mag for me. Especially the coverdisks.

Now to the point of my letter. I was first introduced to the Atari ST by a friend from my old school, about two years ago. And finally, last Christmas, I got my 520STFM.

I use it for a range of things, especially music and art, but of course, I also use it for games.

My old friend had a range of games, of which my favourites were Ikari Warriors, Buggy Boys and Marble Madness. Nowadays though, these games are so ancient they cannot be found anywhere.

Please could you tell me where I could pick up some of these oldies? I would be extremely grateful.

D Walters (aged 13), Brentwood, Essex

**Lots of old games, if they were any good first time round, get a second airing on a budget label, and you will find that the three titles you mentioned are on a budget label somewhere. The best thing to do is to ask at your local shop.**

**Alternatively, you could contact the software houses responsible for the originals. Ikari Warriors was put out by Elite and is on their Encore**

**budget label at £9.99, Marble Madness was done by Palace, and Buggy Boys was an Activision offering. Activision no longer have a UK office but you'll find them in France.**

## ST WORLD CORRECTION

I am writing on behalf of CUG(UK) to express our concern at the article on Prospero C in the current issue of *ST World*. We would not wish to argue with the body of the review, however we must object to the phrase Prospero's Atari ST ANSI C.

As you may know, the final version of ANSI C has been in existence for more than a year and BSI QA has been validating C compilers since last September. No C compiler may claim to be (or imply that it is) an ANSI compiler unless it has been granted a full validation certificate from a national standards authority. Prospero C has not been granted such a certificate by any such authority here or elsewhere.

You make clear that it is only an attempt to get into the proposed ANSI C compatible form, but it is not clear that this is no longer a proposal and so software that does not comply may not legally in the UK make any claim to compatibility or compliance.

The patience of those who have worked hard to get a fully ratified and tested standard is fast running out. Firms allowing false claims to be made should not be surprised if they eventually have to explain their actions to either Trading Standards officers or Advertising Standards personnel.

Turning to other matters, I was interested in your article on portability. It was a pleasant change to see a serious attempt made to raise the standards of C programming.

Francis Glassborow, The Chairman,  
C Users Group (UK), Oxford

**Thank you for bringing the problem to our attention. Hopefully, by printing this letter, any difficulties which may have arisen over the article will be allayed.**

**Our apologies to those responsible for working out the ratified and tested standard for ANSI C compatibility. It is obviously a problem for software developers who, in an attempt to keep up with current trends, develop software against proposed, rather than finalised standards. Hopefully we will witness the release of full ANSI C compilers on the ST soon.**

## FRUSTRATED ARTIST

I am writing about the list of Art and Graphics on page 28 of *ST World* which you gave away free with the June issue of *Atari ST User*, and in particular, "Video Titling Designs".

As I use a Camcorder I thought that this was just what I needed to design my titles. I phoned We Serve and though they hadn't it in stock, they ordered one for me.

When I received it and loaded it I was informed on the text that I needed CAD3 to run it! Not only that but CAD3 is 1Mb whereas my ST is 512K, so that would be no use to me.

I do think that when you give details of software, no matter how brief, it is essential to state that it must have such and such a disk in order that it will operate.

While I am writing I would like to bring up an issue which must concern a lot of readers

like myself who are thinking of changing their old 520STFM and buying a 1040STE. The problem is that I have so many games, graphics, businesses etc, and I just don't know how many will work on the new Atari.

I have phoned Atari and they said they should all work! Other firms have said that some may work! I am more inclined to believe the latter.

Do you think you could enlighten us on this matter? Maybe run a list of games, etc, which will or will not operate on the new STE. I mean old software and games such as Boulderdash and Xor, to name just two.

R E Riches, Southampton

**It can be difficult to supply absolutely all the details about a specific product so that everyone can be certain that, say, a program will work with their configuration of ST. However, it is frustrating for you, the consumer, to order products only to find when you receive them that they are unsuitable. Sorry, we'll do our best.**

**As for the suggestion about the list - yes, in theory, but most likely no, in practice. There are so many games and versions of software, and there are - relatively - too few STE owners to make this a workable proposition for the mag. We couldn't do an exhaustive list, but perhaps we could do something a bit less major. We'll look into it.**

## TIGHT SQUEEZE

I hope you will allow one of us (I cannot be the only one who was appalled) to record a protest in your pages at the dangerous overcrowding permitted yesterday by the organisers of the 16 Bit Computer Show.

It is one thing to be tightly packed, shoved and shoving in an open street market; inside the Novotel hotel, with two floors and a single staircase, all overcrowded, it is just not on.

Quite clearly, the organisers got it all wrong; both the size of the venue and the way they handled it. Perhaps for next year they will take a long hard look at the Alexandra Palace which, whatever its limitation, would never put people's lives at risk in the way we saw yesterday.

G J Katritzky, London

**No one in this country should need to be reminded of the dangers of overcrowding in an enclosed area. If the lessons of the Hillsborough disaster, which happened over two years ago now, have not been learned yet, then what does it take?**

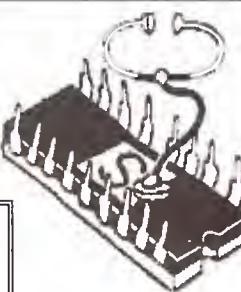
**However, the members of the magazine's staff who travelled to the Show did not report that it was exceptionally crowded - perhaps you were there at a particularly busy time? Whatever the reason, overcrowding is a serious problem which should never be overlooked by organisers of large events.**

**If anyone else wishes to comment, or the organisers of the Show have something to say, please write in.**

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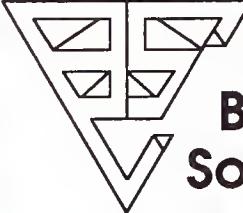
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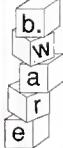
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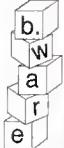


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## Software Buyer's Guide

This month the ST User's buyer's guide looks at the largest of our categories - the software. In future months Midi will have its own section, and hardware products will be featured.

ST User's relies on suppliers and distributors to keep us up to date with the latest information. This information is correct at time of going to press.

### Desktop Publishing

Product	Price	Supplier	Version	RAM	Mode	Description
Calamus	£225.00	Signa Publishing	v1.09n	1Mb	m	Sophisticated DTP program aimed at professional publishers. Outline font system uses same data for generating screen and printer fonts, so there's a good WYSIWYG display. No PostScript support. Linotype bureau available.
Fleet Street Publisher 3	£199.99	Mirrorsoft	v3	512K	c/m	Powerful typesetting-oriented program offering good typographical control. Uses Imagen's UltraScript PostScript emulator routines in its outline font system for screen and print.
Outline Art	£172.50	Signa Publishing	v12.0	1Mb	m	A powerful text manipulation and vector art program designed specifically for use with Calamus. It can only read / write Calamus files, has no printer support and no PostScript support.
PageStream	£149.95	Silica Systems	v1.82	512K	c/m	The UK version of this easy-to-use page makeup program. Outline font system for printing, but slow and poor-quality on-screen display. Good text / graphics import, built-in object art tools, some colour separation.
Timeworks DTP	£99.00	Electric Dist.	v1.12	512K	c/m	A simple but popular DTP program using a very standard GEM user-interface giving a partial WYSIWYG display. Features range from style sheets, text and graphics imports and versatile paragraph styling. Uses GDOS.
Easy Text Plus	£20.00	ZZ Soft.	v1.4	512K	c/m	Simple but effective DTP package. Uses GDOS fonts. Outputs to most printers including Atari laser (1Mb reqd)

### Communications

Product	Price	Supplier	Version	RAM	Mode	Description
FaSTcom	£49.99	Atari UK	1.66	512K	c/m	This has been around for a while now, but it still stands up well with friendly mouse-driven environment, flexible phone book, wide range of modem drivers, call log, Viewdata mode. Sadly, there's no Y or ZModem support.
Flash	£24.95	Electric Dist.	v1.1	512K	c/m	A powerful comms program with built in text editor and sophisticated scripting language. Separate Zmodem module available.
K-Comm 2	£51.70	Kuma	-	512K	c/m	On screen help, supports 1200/75 split baud rate, auto log-on, debug modem Prestel/Viewdata modes and VT100 emulation. No Zmodem.
Mini Office Pro. Comms	£24.95	Database Software	-	512K	c/m	Includes a memory-resident text editor. Good viewdata support with keygrid, two different screen modes, and file download option. Tries to 'hide' the technicalities of comms from the user. No Y or Zmodem.
220ST	£29.95	Microdeal	v1.0	512K	c/m	Simple terminal emulator.
BBS	£49.95	MichTron	v3	512K	c/m	Bulletin board systems software. Strictly for SysOps only.
ST Terminal Emulator	£39.95	Atari UK	v1.0	512K	c/m	Basic VT-100 term emulator on cartridge.

### Document Processors

Product	Price	Supplier	Version	RAM	Mode	Description
Microsoft Write	£149.99	Atari UK	-	512K	c/m	Easy-to-use GDOS document processor. Mac-like in places.
Signum II	£160	Signa Publishing	-	1Mb	m	Ideal for technical writing and foreign language WP.
That's Write	£69.95	Gasteiner Tech.	-	512K	c/m	Multi-font doc. processor with many features

### Word Processors

Product	Price	Supplier	Version	RAM	Mode	Description
Calligrapher Professional	£139.00	Working Title	-	1Mb	c/m	A feature-packed WP with a staggering specification and a superb WYSIWYG user-interface.
First Word Plus	£79.95	Electric Dist.	v3.15	512K	c/m	Straightforward GEM WP with spell checker.
K-Word v2	£47.00	Kuma	-	512K	c/m	Simple GEM WP with mailmerge. Hooks to integrate with other Kuma software.
Protext	£99.95	Amor	v4.2	512K	c/m	Very fast and powerful non-GEM WP.
Protext 5	£152.75	Amor	v5	1Mb	c/m	A much enhanced version of the super-powerful Protext with drop-down menus and dialogs.
Script	£78.22	Signa Publishing	v1.0	1Mb	m	Very-Mac like multi-font WP. Uses Signum fonts.
Word Perfect	£199.00	Word Perfect	-	1Mb	c/m	ST version of the PC heavyweight. Suffers from bad user-interface.
Word Writer	£49.95	Electric Dist.	v2.01	512K	c/m	Similar to First Word Plus, but with a few major features added and a few taken away.

# ST Mouse Stick: The Ratings say it all!

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## Font and Type

Product	Price	Supplier	Version	RAM	Mode	
Font Designer	£60	PCG	-	512K	m	A sophisticated PostScript font editor with detailed control over all font and typeface attributes. PageStream and Calamus conversion utilities available. Ideal for use with Fleet Street Publisher 3.
Fontkit Plus	£19.95	ST Club	-	512K	c/m	A complete set of GDOS font creation/editing utilities supplied with a conversion and printer control utilities. Can import Signum II and Calamus and Macintosh font files.

## Spreadsheets

Product	Price	Supplier	Version	RAM	Mode	
DG Calc	£39.95	Digital Inter.	v1.12	512K	c/m	Budget spreadsheet, but still has a good list of features. Menu, mouse or command driven. ASCII export, and multi window mode to give two views of the same work sheet.
K-Spread v1.0	£28.20	Kuma	-	512K	c/m	Entry level spreadsheet. Functions include +, /, *, -, Sum, Mean, Min, Max. Easy data entry and copying. Ideal for home use and small accounts. Also acts as a good introduction to spreadsheet modelling.
K-Spread v2	£63.45	Kuma	-	512K	c/m	256 col by 8192 GEM-based spreadsheet. Features include sort, conditionals, trig, user-defined functions, easy data entry and editing.
K-Spread v3	£94.00	Kuma	-	512K	c/m	GEM-based spreadsheet loads and saves Lotus .WKS, .WK1, Symphony, ASCII and DIF files. Includes macros, trig, conditionals, database, financial and time/date calculations. User-defined functions.
K-Spread v4	£136.30	Kuma	-	1Mb	c/m	Top of the K-Spread range. Loads and saves Lotus .WKS, .WK1, Symphony, ASCII and DIF files. Functions include graphs, forms/designs, GDOS output, macros, trig, conditionals, database, and time/date calculations.
K-Spread 4T	£159.80	Kuma	-	1Mb	c/m	Based on Spread 4, this version enables data such as share prices to be downloaded from teletext transmissions. Includes timer function which will access data automatically when you're away.
LDW Power	£129.99	Atari UK	-	-	c/m	Fast and Lotus 123 compatible. Up to four worksheet windows. Macro recorder / language. GDOS drivers allow sideways printing. Note feature for every cell.
Logistix	£99.95	Precision Software	v1.3	1Mb	c/m	A multi-function program with spreadsheet, database, graphing and time management modules. Uses a non-GEM character interface with key command operation.
Mini Office Pro. Spreadsheet	£24.99	Database Software	-	512K	c/m	A reasonably powerful package at a down-to-earth price. 255 rows by 255 columns, sideways printing, import ASCII and DIF files and more.
Poweredger ST	£24.95	DTBS	-	512K	c/m	Formerly Powerplan ST, a good spreadsheet package with graphing. 65000 rows by 65000 columns using the standard GEM interface for ease of learning.

## Paint packages

Product	Price	Supplier	Version	RAM	Mode	
Canvas	£14.95	Microdeal	-	512K	c/m	Packed with features, STE support, 3D object editor.
Cyber Paint	£49.95	Electric Dist.	-	1Mb	c	Clever and logical user-interface, animation.
Deluxe Paint	£59.99	Electronic Arts	v1.0	512K	c	Now the definitive ST graphics package. Great user-interface and powerful animation.
HyperPaint 2	£34.99	Atari UK	v2.0	512K	c/m	Colour IMG and STE support. Friendly to use.
Paint Pro	£49.95	DTBS	-	512K	c/m	Simple colour and mono paint program.
Quantum Paint Gold v2	£24.95	Power Computing	v2.0	512K	c	512 and 4096 colour modes, delta animation.
Spectrum 512	£29.95	Electric Distribution	-	1Mb	c	512 colours on-screen. Performs well.
Prism Paint	£79.00	Condor Trading	-	512K	c/m	TT Compatible paint package. Runs in all ST or TT screen modes and supports a range of graphics boards

## Graphics and drawing, monochrome

Product	Price	Supplier	Version	RAM	Mode	
MegaPaint II	£99.95	Silica Systems	-	1Mb	m	Feature-packed high-performance monochrome bitmap editing program which is ideal for use with scanned images. Symbol libraries and a high degree of accuracy, makes this suitable for Technical drawing as well.
MegaPaint Professional	£249.95	Silica Systems	-	1Mb	m	Professional version of Megapaint.
Touch-Up	£149.95	Software Express	v1.5	1Mb	c/m	Very user-friendly bit image editing / processing program ideal for touching up scanned images. Has a number of picture processing facilities and supports a comprehensive array of file formats including TIFF.

## Business and Presentation Graphics

Product	Price	Supplier	Version	RAM	Mode	
HyperChart	£129.95	Atari UK	-	512K	c/m	Sophisticated presentation graphics and slide generation package. Can take numerical data from most ST and industry-standard spreadsheets. Create on-screen rolling presentations or hi-res 35mm colour transparencies.
K-Graph v3	£51.70	Kuma	-	512K	c/m	Displays data as pie charts, area graphs, line/scatter graphs, stacked, horizontal, vertical, 3D bar charts or XY graphs. Loads ASCII and DIF files, accepts direct data input, also has formula and statistics functions.
Mini Office Pro. Pres. Graphics	£24.95	Database s/w	-	512K	c/m	Create pie charts, bar graphs, line graphs, area graphs and scatter graphs with automatic or manual scaling, can also produce slide shows. Cannot create re-sizeable vector graphics, such as .GEM metafiles.



## Art and graphics, colour and mono

Product	Price	Supplier	Version	RAM	Mode	Description
3D Fonts I	£29.95	Electric Dist.	-	1Mb	c/m	Over 250K of serif and sans serif letters. Use these to design your own 3D greeting cards, signs and logos. Create your own fonts and complex 3D multi-coloured objects. Use with the Cyber series.
3D Fonts II	£29.95	Electric Dist.	-	1Mb	c/m	A range of CAD 3D objects including decorative symbols and four types of fonts. This program is designed to work with CAD 3D and other programs in the Cyber series.
Cartoon Design Disk	£29.95	Electric Dist.	v1.0	512K	c/m	This offers a collection of eight imaginative 3D comic characters and specially designed Cyber Control programs for animation. Create impressive and smooth animated sequences using these models. For Cyber series.
Colour Strip	£12.95	HAT Software	v1.0	512K	c	Auto colour separation and sequence dump utility to take the hard work out of colour separations. Colour Strip is Degas PI1 and Neo compatible.
Colours	£19.95	HAT Software	v1.0	512K	c	Takes any Degas-compatible picture file and converts the colours palette so that the picture will print out as intended. The new picture can be saved and printed in the normal way. Useful for colour printer owners.
Cyber Control	£39.95	Electric Dist.	v1.1	1Mb	c	A programming language which automates the creation and display of animations with Cyber. When used with CAD 3D it allows you to program in the position and movement of objects, lights and cameras.
Cyber Sculpt	£79.95	Electric Dist.	v1.1	1Mb	c/m	A 3D object generator capable of producing almost any shape. 2D cross sections can be defined and curves smoothed using splines. For use with CAD3D.
Cyber Studio	£49.95	Electric Dist.	v2.03	1Mb	c/m	A solid object modelling program. Multiple light sources and views. Includes an animator and when used with Cyber Control can generate animation sequences by moving objects, cameras and lights.
Cyber Texture	£49.95	Electric Dist.	v1.1	1Mb	c/m	This program takes 2D pictures and animation sequences from other packages and wraps them round 3D objects for use with Cyber Studio.
DrawArt	£49.95	Electric Dist.	v1.0	512K	c/m	Collection of high quality line art images in the form of GEM files which can be used with most DTP packages. Subjects include food, animals and transport.
Future Designs Disk	£19.95	Electric Dist.	v1.0	512K	c/m	Everything you need to create spacecraft, stations, bases, vehicles, robots and androids. Model your future then populate it with androids and CAD people. For use with Cyber series.
GFA Raytrace	£49.95	GFA Data Media	v2.1	512K	c/m	Omni-colour raytracing system for creating computer-generated and life-like images. Functions in monochrome or colour. Resulting images can be loaded into your own programs. Example GFA BASIC program supplied.
Imagic	£150.00	Signa Publishing	-	1Mb	c/m	Sophisticated animation and presentation creation package with control script language and a wide variety of pre-set visual effects at your disposal. Also as a unique MIDI-controlled multi-monitor 'video wall' facility.
ScanArt	£39.95	Electric Dist.	-	512K	c/m	Collection of high quality images for use with DTP and graphics programs that will import IMG files. Subjects include animals, holidays, office and sport.
Sprinter	£29.95	HAT Software	v1.0	512K	c	A pattern / replication design tool, which is intended to take the hard work out of designing repeat patterns for silk screen printing. Once created the pattern can be separated to provide one silk screen template per colour.
Trip-a-Tron	£29.95	Llamasoft	v1.0	512K	c	A totally unique light 'instrument' created by the legendary Jeff Minter. Use the mouse to trace out colourful light-forms on screen, in time to your favourite music. Loads of parameters and settings to twiddle or tweak.
Video Titling Designs	£19.95	Electric Dist.	v1.0	512K	c/m	Provides a professional finishing touch to cartoons, enabling spectacular animated titles to be created. The program includes 3D font and 3D objects designed specifically for titling effects.
3D Developers Disk	£19.95	Electric Dist.	v1.0	512K	c/m	3D graphics modules for the Cyberseries.
Architectural Design Disk	£19.95	Electric Dist.	-	512K	c/m	Cyber libraries for architectural design.
Border Pack	£29.95	Electric Dist.	v1.0	512K	c/m	Collection of clipart borders in GEM format.
Clip Art for DTP 1 to 5	£14.95	Microdeal	v1.0	512K	c/m	More DTP clipart.
Molgraph	£12.95	ST Club	-	512K	c/m	Graphical molecular modelling. Rotate and scale models.
Paint Pro Library	£24.95	DTBS	-	512K	c/m	Clipart-type library Graphics for PaintPro.
Pro Sprite Designer	£19.95	Power Computing	-	512K	c	Design and animate sprites to use in your own programs.
STOS Sprites 600	£14.95	Mandarin Software	v1.0	512K	c	A collection of colour sprites ready for use in STOS programs.
Chronos	£199.00	Condor Trading	-	512K	c/m	3D graphics animation package. Supports all ST and TT screen resolutions. Cut/paste motion for complex sequences. Mouse or tablet driven with keyboard support.

## CAD, design and drafting

Product	Price	Supplier	Version	RAM	Mode	Description
CAD3D2	£24.95	Electric Dist.	v2.0	1Mb	c/m	A complete package which forms the basis of a versatile 3D graphical modelling system with full animation potential.
DynaCadd	£650.00	ExpressWorks	-	1Mb	m	A comprehensive and immensely powerful CAD package which boasts brisk performance and a high level of inter-file compatibility with other industry-standard CAD systems.
HyperDraw	£39.99	Atari UK	-	512K	c/m	A straightforward GEM-driven object-based drawing program similar in ability to EasyDraw. Used GDOS to give access to font files and a wide range of printers - drawings utilise the full resolution of the output device.
Easy Draw 2	£49.95	Electric Dist.	-	512K	c/m	A powerful drawing program for producing professional looking line drawings, technical illustrations and graphics. Fully WYSIWYG, Easy Draw 2 allows you to copy, rotate, mirror and flip individual or grouped objects.
GFA Draft	£100.00	GFA Data Media	v3.13	512K	m	General purpose CAD software, which although powerful is very easy to learn and use with its menu and icon interface. Exports .GEM, DXF and HPGL file formats. Programmable interface with examples in GFA BASIC.
Supercharged Easy Draw 2	£79.95	Electric Dist.	v2.35	1Mb	c/m	Versatile drawing program with all the capabilities of Easy Draw 2 but also enables Easy Draw 2 line art to be combined with bit images from most popular paint
BeckerCAD ST	£99.95	DTBS	-	1Mb	m	CAD software with many features supporting Postscript output
PC Board Designer	£135.00	DTBS	-	1Mb	m	CAD for printed circuit board design. Prints board and component layout.

# C Programming Systems

Product	Price	Current version number	RAM required	Colour/Mono	Fully relational	Programmable	Integral mail merge	Dedicated label printing	Graphic form design	Record display/print filter	ASCII import and export	GEM Environment
Lattice C 5 HiSoft	£134.95	•	•	•	•	•	•	•	•	•	•	Fast and convenient multi-window integrated environment, compact code generation. The most comprehensive C development system available.
Prospero C Prospero Software	£102.12	•	•	•	•	•	•	•	•	•	•	A very easy to use GEM-based compiler. Compilation quite slow and object code produced is on the bulky side. Superb documentation. A very complete package.
Mark Williams C Electric Distribution	£129.00			•	•	•	•	•		•	•	A good implementation of C that comes with a good manual and lots of handy tools. Has Unix-like tools and a convoluted programming environment.
HiSoft C HiSoft	£59.95		•	•	•	•						Unique. The only C interpreter for the ST. Type in, edit and run C programs as if you were using a BASIC interpreter. Can't produce stand-alone programs.
GST C GST	£19.95		•	•	•	•						One of the first C compilers to be released for the ST, dates back to '85. Primitive by current standards, also slow and low on features. Cheap, simple, crude.

## Databases

Product	Price	ANSI compatibility	GEM-based shell	ST-specific OS docs	GEM editor	Assembler included	Compile from editor	Source-level debugger	Unix-like tools	Resource editor	Make facility	Optimiser
Datamaster Prof. Electric Distribution	£39.95	1.1C	512K	c/m				•	•	•		A rather dated middleweight database package from Electric Distribution. Some pseudo-relational capabilities. Originally developed as Trimbase. Cheap.
DG Base Digita	£49.95	1.62	512K	c/m		•	•	•	•	•	•	Good graphical form design functions with field validation and calculation. Multi-file but not fully relational. Easy filtering and search options.
K-Data Kuma	£51.70	1.39	512K	c/m			•	•	•	•		Easy-to-use with good text entry mode. Useful keyfield list for browsing, with 'class' subset functions for easy filtering. Reporting facilities are fair.
Prodata Amor	£82.25	1.1	512K	c/m		•	•	•	•	•		Non-GEM, but fast and quite sophisticated, visual form designs are possible and data editing is fast and easy. Password protection and Undo implementation.
Superbase Personal 2 Precision Software	£86.91	3.02	512K	c/m	•		•	•	•	•	•	Major upgrade to the original Superbase Personal features a mini WP for all-in mail merge, a comms module for file transfer. Strong label printing functions. The best all-rounder and very easy to use.
Superbase Prof. Precision Software	£217.35	3.02	1Mb	c/m	•	•	•	•	•	•	•	The most sophisticated database management package available for the ST. Intelligent relational and graphical form design, mini WP for mail merge and a powerful DML programming language.
Superbase Personal. Precision Software	£52.15		1Mb	c/m	•	•	•	•	•	•	•	The original version. Lacks the WP functions of personal 2

## Financial

Product	Price	Supplier	Version	RAM	Mode						
Accountant	£299.00	Sagesoft	-	512K	c/m	ST version of the popular Sage accounting suite.					
Accountant Plus	£449.00	Sagesoft	-	1Mb	c/m						
Bookkeeper	£99.00	Sagesoft	-	512K	c/m	Bookkeeping module from the Sage series.					
Cashbook Controller	£49.95	Digita International	v1.3	512K	c/m	Replaces cash and petty cash books and lets you enter credit sales and purchases. It will complete double-entry routines.					
Double Sentry Elite	£74.99	Finansoft	-	1Mb	c/m	Comprehensive double-entry book keeping system. Uses partial GEM front-end.					
Final Accounts	£29.95	Digita International	v1.3	512K	c/m	Takes information prepared by Cashbook Controller to produce a complete set of accounts.					
Financial Controller	£599.00	Sagesoft	-	1Mb	c/m	Complete accounting suite.					
Home Accounts	£24.95	Digita International	v2.2	512K	c/m	Budget home accounts program for personal use.					
Payroll	£99.95	Microdeal	v1.0	512K	m	A complete and very easy-to-use program for managing your personal finances, bank accounts, etc.					
Personal Accounts Plus	£29.95	Equinox	-	512K	c/m						
Personal Finance Manager Plus	£39.95	Microdeal	v1.0	512K	c/m						
Personal Tax Planner	£39.95	Digita International	v4.011	512K	c/m	Tax management for individuals.					
Small Business Accounts	£80.44	Equinox	-	512K	c/m						
Small Business Accounts Extra	£114.95	Equinox	-	512K	c/m						
Small Business Accounts Plus	£229.94	Equinox	-	512K	c/m						

# Programming - General

Product	Price	Supplier	Version	RAM	Mode	Description
APL68000	£99.95	Micro APL	v6.05	512K	c/m	A complete development environment for the powerful APL 68000 language. GEM support and full access to the ST's standard facilities. Includes built-in function editor and APL session manager.
C Breeze	£24.95	Microdeal	v1.00	512K	c/m	A fast text editor designed specifically for C programmers. Features a multi-file environment and automatic syntax checking. Good block handling includes a 'click on bracket' auto highlight function.
DevpacST 2	£59.95	HiSoft	v2.25	512K	c/m	The definitive 68000 macro assembler for the Atari ST. Fast assembly, a good integrated source code editor, linker and powerful disassembler/debugger. Preferred by most video game programmers.
Fast ASM	£19.55	Computer Concep.	v1.01	512K	c/m	The in-line assembler taken from Fast BASIC and turned into a stand-alone product. No macros or debugger, but an excellent multi-file editor. A good starting point for learners.
FTL Modula 2	£99.95	HiSoft	v1.21	512K	c/m	A solid implementation of the Modula 2 language. Features a fast one-pass compiler, multi-file GEM source code editor, linker and assembler, full GEM libraries and a library manager.
K-Occam	£63.45	Kuma	-	512K	c/m	Contains everything necessary to write, compile and run Occam 1 programs on the ST. Provides an ideal training aid for programmers interested in this transputer language.
K-Resource 2	£47.00	Kuma	-	512K	c/m	A complete package for creating and maintaining resource files, producing output files for C, Pascal, Fortran and Modula 2. It can also be used with BASIC.
K-Seka	£51.70	Kuma	-	512K	c/m	Assembly language programming package consisting of editor, linker, assembler, disassembler, machine code monitor and debugger. Command-line driven. Fast but very crude with many important directives missing.
Mission Control	£20.00	GFA Data Media	v1.0	512K	c/m	Program launch and linking utility for hard disk users. Select and run programs with preset data files with a single key press. Automatically run another program after termination of current program.
MPE GEM Forth	£49.95	MPE	v2.00	512K	c/m	A Forth language environment offering GEM support down to AES, VDI and Line-A levels. Includes 68000 macro assembler and a useful collection of Forth source code examples.
Nevada Cobol	£49.95	HiSoft	v3.4	512K	c/m	A CP-M-80 version of the most widely-used data management language for minicomputers and mainframes. Requires the Public Domain CP/M emulator. Ideal for learning and dabbling.
Prospero Pascal	£102.12	Prospero Software	v2.151	512K	c/m	A solid ISO standard implementation of the Pascal programming language. Good GEM support with several extensions to the ISO standard. Cross reference generator and source level debugger included.
STOS The Game Creator	£29.99	Mandarin Software	v2.5	512K	C	A fast graphics oriented programming and game development environment. Includes built-in sprite and sound editors. Make games ludicrously easy for the novice to produce.
WERCS	£34.95	HiSoft	v1.23	512K	c/m	A comprehensive GEM resource construction / editing kit for programmers. Excellent icon and image editing facilities. Good documentation and sample code for BASIC, C, assembler, Pascal and Modula 2.
Assem Pro	£49.95	DTBS	-	512K	c/m	Macro assembler package.
Craft	£99.95	HiSoft	v2.0.8	512K	c/m	Unix-like shell and development environment.
CSD C Source Debugger	£59.95	Electric Distribution	v2.0	512K	c/m	Source level debugger for Mark Williams C.
FB Runtime Disk	£11.50	Computer Concep.	-	512K	c/m	Creates stand-alone Fast BASIC programs, not a compiler.
Fast ST BASIC (ROM)	£89.90	Computer Concep.	-	512K	c/m	Cartridge version of Fast BASIC.
Forth MT	£49.95	DTBS	-	512K	c/m	
GST ASM	£19.95	Electric Dist.	v1.16	512K	c/m	Simple 68000 assembler.
HiSoft FORTH	£39.95	HiSoft	v1.01A	512K	c/m	Forth-83 standard with full access to ST specifics including GEM.
Personal Pascal	£79.95	HiSoft	v2.05	512K	c/m	Full Pascal development system..
Prospero Fortran For GEM	£102.12	Prospero	-	512K	c/m	
Prospero Fortran 68881 Libraries	£70.50	Prospero	-	512K	c/m	FPU libraries for Prospero Fortran.
Prospero Pascal 68881 Libraries	£70.50	Prospero	-	512K	c/m	FPU libraries for Pascal.
Prospero C 68881 Libraries	£70.50	Prospero	-	512K	c/m	FPU libraries for Prospero C.
STOS Compiler	£20.99	Mandarin Software	v1.0	512K	C	Compile STOS code to stand-alone programs.
WERCS Plus	£49.95	HiSoft	v1.21	512K	c/m	WERCS bundled with a GDOS kit. Includes extra docs.
Z80/68000 Code Translator	£99.95	CP Software	-	512K	c/m	Convert Z80 source code into 68000.
GFA Assembler	£50.00	GFA Data Media	v1.5	512K	c/m	Integrated editor, Macro Assembler, linker and debugger. Checks syntax on entry.
Highspeed Pascal	£99.95	HiSoft	v1.1	512K	c/m	Integrated Pascal compiler system compatible with Turbo Pascal 5 on the PC
DevpacTT	£129.00	HiSoft	v3.01	c/m		The TT version of Devpac ST
Z80 Macro Cross Assembler	£49.95	D&S Software	-	512K	c/m	Z80 programmers development system. Includes editor, assembler, linker and RS232 transfer utility.
MakeST	£19.95	D&S Software	-	512K	c/m	Programmer's MAKE utility. Requires assembler, compiler, linker and library manager programs in TTP format. Supplied with instructions for Z80 cross assembler, Devpac, Prospero C and others.

# Sound Sampling

Product	Price	Supplier	Version	RAM	Mode	Description
MasterSound 2	£39.95	Microdeal	-	512K	c/m	Budget sampler, modest but capable. Now with STE-specific functions.
Pro Sound Designer Gold	£50.07	Power Computing	-	512K	c/m	Includes Pro-MIDI, Pro-Light and RAP.
Replay 8	£79.95	Microdeal	-	512K	c/m	Popular and capable sound sampler, good editing facilities. Recently improved and relaunched.
Replay Professional	£129.95	Microdeal	v1.1	512K	c/m	High-spec sampling package with useful sound processing facilities.
STOS Maestro	£24.99	Mandarin Software	v1.1	512K	C	Sample editor geared up for STOS. Available with sampler cartridge for £69.95.
TCB Tracker	£15.00	MPH	-	512K	C	Superb sample sequencer with MIDI capability and processor efficient sample playing. Full STE support.
DAATASOUND	£39.95	Pandaal Marketing	-	512K	c/m	Sampling cartridge with editor/sequencer software. 6-25Hz sampling, echo, fade etc. STE enhancements.

## Utilities – Disk

Product	Price	Supplier	Version	RAM	Mode	Description
Dash	£19.95	Microdeal	v1.00	512K	c/m	A handy collection of disk management utilities all rolled into one program. Formatter, copier, virus detector, and an option which attempts to copy corrupted disks. Not particularly good - try the PD scene for better utils.
Hard Disk Accelerator	£29.99	Third Coast Tech	-	512K	c/m	Gives an option of installing a RAM cache of between 8K and 64K. It works effectively but doesn't seem to offer anything special over PD caches or the utilities supplied with most hard disks.
Knife ST	£34.95	HiSoft	v1.08	512K	c/m	A hacker's dream - not the pirating person, but the programmer who knows his bits from his bytes and likes to boldly explore the innermost depths of the ST's memory and disk system.
Sentry	£49.95	Third Coast Tech	-	512K	c/m	Hard disk defragger, arranges files into continuous sectors on the hard disk making them load faster. Includes an undelete program for rescuing wanted files from that bit-bucket in the sky. Overpriced.
ST Doctor	£19.55	Computer Concep.	v1.02	512K	c/m	An old, but still useful disk editing utility that installs itself as a desk accessory. Combines a fast memory monitor, disk editor and program disassembler in one utility.
Crystal	£24.95	Electric Dist.	v1.0	512K	c/m	Multi-function disk utility. Old but still quite good.
Flash	£19.41	Power Computing	-	512K	c/m	Fast hard disk backup program with a caching utility.
Hard Drive Turbo	£29.95	Microdeal	v1.0	512K	c/m	Collection of HD tuning and optimising utilities. Risky.
Saved!	£34.95	HiSoft	v2.22	512K	c/m	Useful collection of disk utilities available from the desk accessory slot.
Supra HD utils	£49.95	Frontier Software	-	512K	c/m	The complete Supra hard disk software set.
UIS III	£19.95	ST Club	v3.1	512K	c/m	Universal Item Selector 3, packed full of useful disk/file options.

## Utilities – General

Product	Price	Supplier	Version	RAM	Mode	Description
Blow Up	£14.95	HAT Software	v1	512K	c/m	Produces large print outs of any Degas PI1 or Neo format picture, scaling up to 2/3/4 times the original size.
DAATAFax	£34.95	Pandaal Marketing	-	512K	c/m	Computerised Filofax information manager. Enter and maintain your Filofax data with this easy-to-use software, then print it all out on to Filofax-compatible paper. Helps you keep your organiser neat and up-to-date.
Epson Emulator (SLM804)	£29.99	Atari UK	v1.00	2Mb	c/m	If you must, then you can force the powerful Atari laser printer to emulate a humble Epson dot-matrix printer. More flexible than the Diablo emulator and useful for graphics and art packages that can't drive a laser.
First Mail	£14.95	Electric Distribution	v3.04	512K	c/m	A mail-merge program which is compatible with all versions of First Word Plus. First Mail will allow you to combine your word processor with all the popular database programs currently available on the Atari ST.
Flexidump Plus	£39.95	Care Electronics	v3.03	512K	c/m	If the ST's built in screen dump facility isn't good enough then replace it with this powerful and flexible utility. Any size dumps are possible and you can also dump any grabbed section of the screen.
Fontkit Plus	£19.95	ST Club	v3.0	512K	c/m	This nicely presented package includes a comprehensive suite of well written software centred around an excellent GDOS font editor. Use the fonts provided or design your own. Good documentation.
Font Print	£5.95	ST Club	v1.00	512K	c/m	Allows any Epson-compatible printer to emulate the downloadable font facility. Intercepts normal ASCII text sent to the printer and replaces with a bit-map. Uses GEMDOS font files to produce good results.
Harlekin	£49.95	HiSoft	v1.07	1Mb	c/m	A remarkable multi-function desk accessory. Packed with useful features including a Scapbook yearplanner/diary, fast text editor/WP, comms module, disk utilities, files/memory editor, print buffer, and a whole stack more.
K-Index	£21.15	Kuma	-	512K	c/m	Indexing utility which produces an itemised, alphabetical page referenced index from marked words/phrases in a word processed document. Operates with K-Word 2, First Word and ST Word files. Fast and easy to use.
K-Rhymes	£21.15	Kuma	-	512K	c/m	Based on Longmans' Pocket Dictionary of Rhymes, K-Rhymes enables you to explore the many possible rhymes in the English language. It operates as a desk accessory, for access from within applications.
K-Roget	£51.70	Kuma	-	1Mb	c/m	Operates as a desk accessory enabling word processor users to select the ideal word from its database of over 150,000 words and phrases. Includes phonetic spelling checker which will suggest correctly spelt alternatives.
NeoDesk 3	£39.95	Electric Dist.	v3.01	512K	c/m	The ultimate full-featured alternative Desktop replaces the standard item built in to your ST. Extended file copying and formatting facilities combined with dozens of icons and handy shortcuts make this a must.
Revolver	£39.84	Power Computing	-	1Mb	c/m	An advanced program switcher. Roll in and roll out the entire contents of the ST's memory to disk (preferably the hard variety) so you can quickly chop and change between software applications.
Tempus 2	£39.95	HiSoft	v2.07	512K	c/m	Designed mainly for programmers tapping in source code, however, this incredibly fast multi-window text editor has some simple word processing facilities too. No other text editor matches its performance.
Turbo ST	£34.95	HiSoft	v1.84	512K	c/m	Software blitter that intercepts some of the ST's operating system routines and replaces them with ultra-fast alternatives giving vastly improved screen handling and GEM drawing performance. DA and AUTO folder versions.
Utilities Plus	£29.95	Microdeal	v1.00	512K	c/m	A mixed bag of utilities. Some may be considered to be essential, but you'll be scratching your head wondering how to make use of the others. Good manual and a lot of programs for the price.
Back Pack	£49	Computer Concep.	-	512K	c/m	Cartridge-based multi-function organiser/utility set.
Easy Tools	£39.95	Electric Dist.	v1.0	1Mb	c/m	Collection of extra functions for EasyDraw 2.
Juggler 2	£24.95	Microdeal	v2	512K	c/m	Program switcher. Not as reliable as the opposition.
K-Switch II	£29.95	Kuma	-	512K	c/m	Solid four-partition switcher with no clever features.
Mailshot	£24.95	Digital Intern.	v1.0	512K	c/m	Crude address label printing utility.
Mailshot Plus	£49.95	Digital Intern.	v1.0	512K	c/m	Souped-up Mailshot. Use a database package instead.
Partner ST	£49.95	Electric Dist.	v1.0	512K	c/m	Comprehensive screen-print utility. Colour screen prints in portrait or landscape. Mono version available £10.95
IMPrint	£15.95	ZZ Soft	-	512K	c/m	Very naughty hardware-based backup tool.
Twist	£39.95	HiSoft	v1.0	512K	c/m	Program switcher with several unique features including an animated screen roll.

## Education and Learning

Product	Price	Supplier	Version	RAM	Mode	Description
Better Maths	£22.95	School Software	-	512K	c	A compilation of maths programs. Better Maths is ideal for the ambitious student, giving hours of tuition for GCSE and similar exams. Covers a wide range of popular sections of maths at this level.
Better Spelling	£22.95	School Software	-	512K	c	An effective spelling course suitable for young people and adults. Main emphasis is on developing and improving spelling skills.
First Paint	£12.95	HAT Software	v1.0	512K	c	Suitable for a complete beginner, from the very young to adult age. Large easy-to-read menus and mouse operations. Degas-compatible standard 16-colour painting.
First Type	£12.95	HAT Software	-	512K	c/m	Converts the ST into an electronic typewriter suitable as an introduction to word processing for young children.
Fun School 2 Under 6s	£20.99	Database Ed. s/w	v1.0	512K	c	Consisting of eight separate programs, Fun School 2 offers a broad appeal with good teaching qualities. Biggest-selling educational package ever, with sales in the UK exceeding 150,000 units.
Fun School 2 6-8s	£20.99	Database Ed. s/w	v1.0	512K	c	Eight colourful programs designed by educationalists: Number Train, Maths Maze, Caterpillar, Shopping Packing, Treasure Hunt, Number Jump and Bounce.
Fun School 2 Over 8s	£20.99	Database Ed. s/w	v1.0	512K	c	Eight clearly designed programs to entertain and educate your children: Logic Doors, Build a Bridge, Passage of Guardians, Unicorn, Escape, Souvenirs, Code Boxes and Mystery Machine.
Jigspell	£14.95	HAT Software	v1.0	512K	c/m	Teaches spelling by encouraging children to remember words rather than copying them over and over again.
Magic Maths (4 to 8)	£22.95	School Software	-	512K	c	Five programs which reinforce addition and subtraction, counting, number skills and mathematical concepts. Variety of difficulty levels to challenge the child.
Maths Mania (8 to 12)	£22.95	School Software	-	512K	c	Emphasis on multiplication and division with many levels of difficulty to suit different ages and abilities.
Mavis Beacon Teaches Typing	£26.07	Mindscape	-	512K	c/m	A sophisticated typing tutor with artificial intelligence. Mavis guides you through a series of different tests and exercises, identifying your typing strengths and weaknesses.
The Three Bears	£22.95	School Software	-	512K	c	Improves reading skills and develops imaginative thought. A disk-based adventure with a strong educational content aimed at youngsters aged between 5 and 10.
AB Zoo	£3.99	Microdeal	v1.0	512K	c	Alphabet drill for the toddlers.
Algebra 1	£3.99	Microdeal	v1.0	512K	c	Learn algebra the fun way.
Astronomy Lab	£19.95	ST Club	-	512K	c/m	A complete astronomy exploration package.
Let's Spell At Home	£19.95	Soft Stuff	-	512K	c/m	Theme-based spelling tutor.
Let's Spell At The Shops	£19.95	Soft Stuff	-	512K	c/m	Theme-based spelling tutor.
MusiCal	£113.85	Evenlode	-	512K	c	Music for beginners.
Puzzle Book 1 4-90 Years	£19.95	Soft Stuff	-	512K	c/m	
Quizam	£19.95	Electronic Arts	-	512K	c/m	
Spell Book 4 to 9 Years	£19.95	Soft Stuff	-	512K	c/m	
Things To Do With Numbers	£19.95	Soft Stuff	-	512K	c/m	Basic numeracy for young children.
Things To Do With Words	£19.95	Soft Stuff	-	512K	c/m	Exploring words.
Prof Plays a New Game	£25.53	Prisma Software	-	512K	c	Reading pack for non readers. Includes 5 reading books and cassette story.
Prof Looks at Words	£25.53	Prisma Software	-	512K	c	An introduction to spelling.
Prof Makes Sentences	£25.53	Prisma Software	-	512K	c	Encourages writing simple sentences and introduces the keyboard.
Prof Hunts for Words	£25.53	Prisma Software	-	512K	c	Using clues to hunt for words, encourages reasoning and deduction.

## Programming - BASIC

Product	Price	Supplier	Version	RAM	Mode	Description
Fast ST BASIC	£44.95	Computer Concep.	-	512K	c/m	A BASIC interpreter with a superb multi-window program editor. Based on a structured BBC BASIC with a built-in assembler. Slow but easy-to-use.
GFA BASIC 3	£50.00	GFA Data Media	v3.5	512K	c/m	An advanced and high performance BASIC interpreter offering good low-level access to the operating system. Extensive command set giving immediate access to all facilities in the ST.
GFA BASIC Compiler	£30.00	GFA Data Media	v3.5	512K	c/m	This fast compiler takes GFA BASIC 3 programs and turns them into executable program files. Code generated is compact and very fast in execution. C-generated code can be linked in at compile time.
GFA BASIC System 2	£20.00	GFA Data Media	-	512K	c/m	Combined BASIC interpreter and compiler ideal for both the new programmer and experienced programmer alike. The interpreter is fast but the compiler will produce code almost as fast as machine code.
GFA GUP	£30.00	GFA Data Media	v1.0	512K	c/m	A set of pre-written subroutines designed to make GEM programming in GFA BASIC 3 easier. GUP actually consists of a GEM skeleton program which you customise and add your own programs to.
HiSoft BASIC 2	£69.95	HiSoft	-	512K	c/m	An advanced Microsoft QuickBASIC compatible BASIC compiler. Features a fast GEM source editor with integrated compiler. All of the advantages of a compiler plus all of the advantages of an interpreter.

# Calligrapher Junior ?

Calligrapher Junior is a word-processor with a difference - it has powerful graphic and presentation facilities to give your words more impact.

- 1** Fonts provided in a variety of styles. **Real bolds.** *Real italics.* Five different families of fonts supplied as standard:

Zurich

Holland, Holland **Bold** and *Italic*

Uotype Medium and **Bold**

**MathSymbols** αβχδεφ γηΑΒΧΔΕΦ

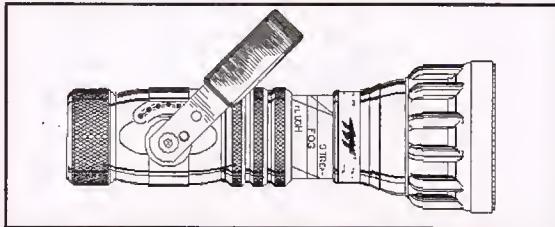
**Ornaments** ● ○ Δ Η Κ

- 2** Vector outline fonts allow you to print big headlines or small print from 6pt to 128pt.

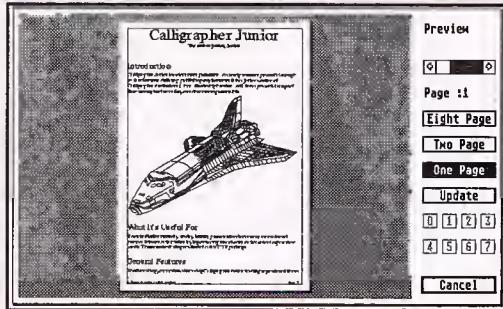
small print at 6pt using vector outline font

# 48pt Font

- 3** Imports .IMG and .GEM graphics, which can be freely resized within Calligrapher. You can also convert, crop and manipulate Degas and Neochrome pictures.

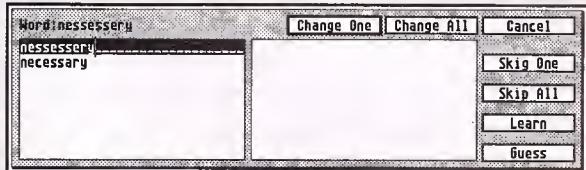


- 4** Preview your document before you print. You can view 1, 2 or 8 pages at a time.



- 5** Multiple columns. You can have several columns on the page, edit with multiple columns on screen and preview your work.

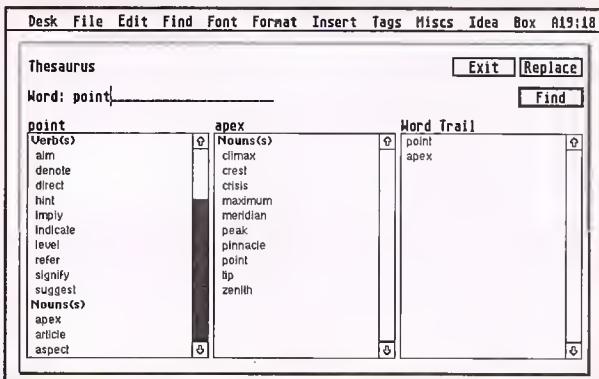
- 6** 80,000 word spelling checker, with phonetic and alphabetic guess. User dictionary, skip one or all occurrences. You can even check as you type.



- 7** Up to 7 documents can be held in memory at once. You can switch between them and cut, copy and paste from one to another.

- 8** Drivers for 9 pin printers and 24 pin printers. (Will also drive ink jet printers such as the BJ10e at 180 DPI). If you have GDOS bitmap fonts, Calligrapher can use these as well.

- 9** 200,000 Synonym thesaurus included as standard. (Requires 1 double sided disk drive).



- 10** Headers and footers on odd, even or all pages. You can change the headers and footers repeatedly throughout the document. Headers can contain multiple lines, rules and graphics etc.

- 11** Footnotes with identifying numbers. You can put almost anything in footnotes that can be included in normal text.

- 12** Calligrapher Junior can run on a 520 ST and is provided on single sided disks. 1Mb of memory is recommended.

- 13** Costs only £69.00 all inclusive.

## THE ONLY THING JUNIOR IS THE PRICE

# INTERACTIVE

## PORTABLE FONTS

**Q** I notice that some suppliers of clip art on the ST have ported it over from a Macintosh computer, that is, a PC.

Would it therefore be possible with a PC emulator to port the Electronic Font Foundry fonts (from the Archimedes) to an ST as the EFF fonts are superior to anything seen so far?

I want top quality DTP typesetting and music notation without loads of repetitive type software. Impression II on the Archimedes and PageStream on the ST, for example, both use outline fonts.

D Stone, Walsall, West Midlands

**A** Although it is often possible to port clip art from one computer to another in various forms, the same is certainly not true for fonts. Your first mistake is thinking that the Macintosh is a PC. I contacted EFF who confirmed my suspicions that it is not going to be possible to port the fonts from the Archimedes to the ST.

The problem is that the fonts for different packages tend to be in totally incompatible formats, so even though you could copy the fonts quite easily from one machine to another, the software on one computer would almost certainly not recognise the fonts from another.

If I understand your final sentence, you do not want to buy two DTP packages both using outline fonts, just because the fonts available for the Archimedes are "superior to anything seen so far". I think you'd find it hard to beat fonts available for the top DTP programs on the ST, such as PageStream and Calamus, so the ST should be the ideal tool.

## QUESTIONS, QUESTIONS

**Q** Directly due to your magazine I am about to join the world of computer crazies by purchasing an Atari 520 STE. Perhaps you will be kind enough to allay a few fears which have already arisen.

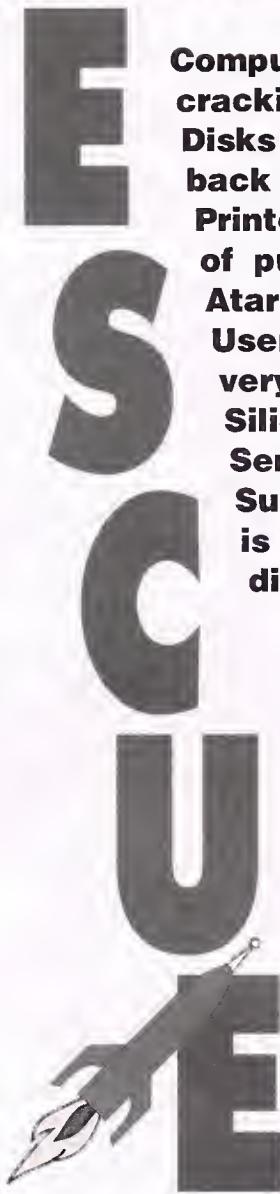
How great is the danger of contracting a virus? Is this risk increased with the buying of PD disks? What is the difference between DSDD and DSHD disks and the benefits or otherwise of them? How reliable is the Atari's power supply? Do you think that I should still buy a computer?

M G Fowler, Harwich, Essex

**A** It is always difficult to decide which new computer to buy, and I think you have made the right decision in asking these questions before parting with your cash.

Viruses can only infect disks which

**Computer cracking up?  
Disks doing back flips?  
Printer out of puff?  
Atari ST User's very own Silicon Service Supremo is at your disposal**



**are not write protected. If you always write protect any new disk being put in your machine, then even if you get a disk with a virus on it, it cannot spread. I would recommend getting a virus killer - there are a number available - and checking every disk you get.**

**In general, a virus will only infect your computer if it is on a disk which is in drive A when the computer is first switched on or re-booted. A virus cannot stay in your machine if it is switched off for any length of time - say, one minute to be totally safe.**

**So with a few sensible precautions you should remain virus free. As for**

**the chances of getting a virus being increased by buying PD software, the answer is no - but you should still check all disks to be on the safe side.**

**The difference between DSDD and DSHD is significant for ST owners. DSHD (Double Sided High Density rather than Double Sided Double Density) disks are designed for computers with high density disk drives. They are capable of holding more data, and are therefore more expensive.**

**Although they can be used with STs, it is not recommended as some "normal" disk drives may have problems writing to a high density disk. In any case, the Atari cannot read disks which have been formatted on a high density disk drive.**

**The ST's power supply is very reliable generally. Although some early STs tended to get rather warm (well, alright then, very hot!) this is much less of a problem with the STE.**

**Finally - yes! Go and buy an ST now!**

## OUTSIDE HELP

**Q** F A Fulbrook writes in response to July's Interactive Rescue: I have had the same problem as S Morris of York with the Citizen 120D+ printer and NLQ in First Word Plus.

The problem lies with the Epson FX printer driver, EPSON\_FX.CFG, which does not support NLQ at all. The simplest answer is to switch the printer to NLQ format by holding down the LF button and pressing the On Line button.

The alternative is to edit the EPSON\_LQ.CFG file, which gives NLQ in all modes except when importing graphics. The changes required are as follows: alter the printer configuration line to 0,0,C,48,0,0, then alter the characteristics line 26 to 1B, 2A, 5 and line 34 to 1B, 41, 12.

Save the edited file to another name, such as CITIZEN.HEX, then run the INSTALL.PRG program to produce a .CFG file. The results can be tested using the supplied TEST.DOC.

F A Fulbrook, Milton Keynes

## MINE'S A DOUBLE

**Q** Please could you help me with a couple of problems? I have a 520 and a Canon BJ10e printer and use either ST WRITER or the Organiser supplied with the ST. When I try to print letters the printer prints in double line format. How do I stop it doing this?

The other problem is I have some trouble

**...anything can happen in the next half hour...**

getting *Atari ST User*, even though I have an order with a newsagent. I could not get the February issue for love nor money. I hope you can help.

E K Bull, Ipswich, Suffolk

**A** Unfortunately, I do not have a Canon BJ10e to experiment with, but I suspect that like most printers it has some form of switch setting which allows it to print an automatic line feed with carriage return.

If this option is set on the printer, every time your computer tells it to do a carriage return (ie move the print head back to the left margin) the printer automatically also performs a line feed.

If your software also sends a line feed after a carriage return - which most do - then you end up getting two line feeds for your money. Find out from your printer manual how to switch the option off, and Robert should be your father's brother.

The lack of February's - and any other - issue of *Atari ST User* is very, very serious indeed. Contact the Back Issue department on 051-357 1275 immediately or fill in the order form elsewhere.

Seriously though, if any readers have difficulty obtaining their copy, please let us know so we can send the boys round to the newsagents. And they're very clumsy...

## UP, UP AND AWAY

For some time I have wanted to swap the internal disk drive for a 1Mb drive. There are many on the market now, but I would prefer not to make any changes to the case of my ST.

Then I wondered if there was an external drive that could be swapped with the internal drive, putting the single sided drive into the case from the double sided drive?

Secondly, I may upgrade to 1Mb of ram using one of the pre-populated boards that could be increased later. Would there be any performance differences between the different makes?

Lastly, are there any blitter chip upgrades available, and before I consider upgrading the TOS, how do I know which version I have?

Peter Slegg, Newton-le-Willows, Lancashire

**A** Although most external drives could be removed from their cases and fitted internally, I doubt if you will find one which fits without modifying the case at all. The case modification is very small, however, and only takes a few minutes.

There should be no performance differences between the different memory upgrade boards on offer - but try to have a look at the fitting instructions before parting with any money. Some upgrades are not as easy to fit as their suppliers would have you believe!

Blitter upgrades are available, though the fitting is not easy. Try Ladbrooke Computing (0772) 203166, and before buying, make sure it will work on your version of the ST. There



are several PD utilities which show which version of the operating system the machine is running. Contact one of the PD libraries through the adverts in this magazine and they should be able to supply you with one for a small fee.

## ANY PORT IN A STORM

**Q** Is it possible to use the cartridge port of an Atari 1040 STF to input data from an analogue to digital converter? If this is possible, I would be grateful if you could give advice on any information available.

Failing this, is it possible to use any of the other ports on the Atari? I enclose a stamped addressed envelope if you are able to answer by letter.

John Sherman, Colchester, Essex

**A** It certainly is possible. Input through the cartridge port is not only possible, but used by a wide variety of sound sampling cartridges. As for the methods required, this is somewhat outside the scope of Interactive Rescue - perhaps one of our readers could help?

As a reminder to all readers, I cannot possibly reply to queries individually - the magazine would never get published! So please do not include saes with your queries.

## SHARE AND SHARE ALIKE

**Q** I have been asking myself the same question for ages. Is it possible to have three computers linked up to the same printer? My dad owns an IBM computer, I own an Atari STE and my sister owns an Atari STFM. We own a Hewlett Packard Deskjet 500. Is it possible to have these computers linked to our printer? If so, what do we need to do it?

William Robertson, Voe, Shetland

**A** I take it your father drew the short straw when it came to buying computers! As long as all three computers are printing via the Parallel Centronics port, that is, the printer port on the ST, and not the serial RS232 port, then all you need is a printer sharer. These can be obtained from many sources. Try Evesham Micros (0386 765500) who do a four-way automatic switcher for £69.95.

The main problem with this tends

to be the maximum length of printer cable. You may find one or more of the machines not printing if the cable used is too long.

This can be overcome by printing via the RS232 port, where cables can be almost as long as you like. Some packages and printers, however, do not support printing via this port.

## OPEN AND SHUT CASE

**Q** I am an Open University student. Next year I am going to study course T102 Living with Technology. I own an Atari 1040ST that I use on a Steinberg Midi set up. The way I read things, I have to buy an IBM computer - because they have no hire ones left. I have heard of a package called pc ditto that turns the Atari into an IBM computer.

Can you advise me on any software I could buy, and would the ST then be up to the required specification? Can the Atari handle this lot, or wot?

Derek Drury, Maidstone, Kent

**A** From the details you enclosed with your letter, I would guess that any of the PC emulators available for the Atari would be suitable for your requirements. The one you mention, pc ditto, is very slow as it is a software emulator.

This means that every PC machine code instruction has to be translated in software before being executed. For many applications this shouldn't be too much of a problem.

The best bet would be to go for one of the several hardware PC emulators, such as PC-speed or AT-speed. Be prepared to fork out around £100 minimum for such emulation, and check that the suppliers can provide a version of MSdos.

I notice that the course requires use of Gem. Although the ST has Gem built in, unfortunately you will have to buy a version of Gem if it is required for your course.

## MAGNETIC ATTRACTION

**Q** I felt I must write and complain about the Absolute Beginners article in issue 64. Since the service concerns introducing the novice user to the many aspects of computing, one would expect the article to be factually correct.

My most important complaint concerns the advice on how robust floppy disks are: "... get ▶

► the biggest magnet you can find and rub it backwards and forwards over the disk...". Let me put you straight about the magnet trick.

The data is encoded onto a floppy disk by writing a magnetic pattern on to the magnetizable surface of the disk. In order to corrupt or erase this data the disk must be exposed to a magnetic field strength greater than 30 Oersteds. This is the threshold figure quoted by IBM above which disk function cannot be guaranteed. (1 Oesterd = 79.58 amps per metre).

A more common unit to express the strength of a magnet is in terms of its magnetic flux density. The units are Tesla or Gauss (10,000 Gauss = 1 Tesla). If we are using a magnet in air then a flux density of 1 Gauss is equivalent to a field strength of 1 Oesterd. So a magnet having a flux density greater than 30 Gauss is obviously bad news for our floppy and hard disks.

To put this into perspective, an average loudspeaker magnet used in a 6in drive unit has a flux density of approx 250 Gauss. OOPS! Bye bye data!

Dr Paul Lethbridge, Lewes, E Sussex

**A** The idea the Absolute Beginners article was attempting to put over was that disks are not quite as fragile as many people seem to believe. It was pointed out more than once that a back up should be kept.

Although your figures are impressive, and I do not doubt the validity of them, I have just taken a 5in speaker magnet - I don't have a 6in one! - and spent five minutes rubbing it over a disk. The disk is in perfect condition.

Now I don't expect everyone to rush out and test this for themselves - I'm sure that with a higher strength magnet or more prolonged use I could have corrupted the disk.

But I think the point has been made. You shouldn't mistreat your disks, but neither do you need to be excessively cautious - as long as you have a back up.

### STE UPGRADE

**Q** While having my STFM in pieces to fit a half megabyte upgrade, I noticed a square printed on the circuit board to take a blitter chip. What I would like to know is, is it possible to convert an STFM to an STE by installing/replacing the various chips needed, or is it more complicated than that?

If it is possible, do you know of any companies that will be producing a kit, and how much it would cost? I hope this can be done, as it would be a lot cheaper than selling up and starting again.

Philip Hall, Harleston, Norfolk

**A** The simple answer to your question is NO! There have been a number of changes to the ST in its evolution from STFM to STE. While, in principle, it would be possible to upgrade one to the other, it would be more expensive than simply buying a new STE.

For example, you would need an upgrade similar to TC Developments 4096C colour board, reviewed elsewhere in this issue, a blitter chip,



upgraded Tos chips, the extra sound hardware and don't forget the extra joystick ports. Even if all these were available, the cost would probably be higher than an STE. If you do want to upgrade, I would suggest selling your current ST and shopping around for a new STE.

### THE PLOT THICKENS

**Q** The July issue of *Atari ST User* printed some very useful information concerning the Tandy CGP115 four colour printer. However, the first program failed to change the text colours. I suggest it needed:

### 25 LPRTINT CEN

to make it work properly.

Please could you print a program that could be merged in GFA Basic to get a four colour screendump by pressing Alt/Help?

N W Scott, Altrincham, Cheshire

**A** Thank you for pointing out the change to the program needed to change the text colours. I'm afraid I do not know of any screen-dump programs available for the Tandy. Can anyone else help?

### OH BROTHER!

**Q** I recently purchased a Brother M-1009 printer at an office sale of second-hand equipment, but I am afraid it did not have the instruction manual supplied with it.

Consequently I have been unable to get it to print on my STFM. I was wondering if it could be either the printer lead supplied (Canon GB8420 ADB 25P) or the switch setup on the inside of the printer which has two sets of eight switches?

A friend told me to try a Centronics printer lead, but I do not wish to go to further expense if possible. I am writing to you in the hope that you can help me before I go out of my switch flicking mind.

P R Morgan, Gwent, S Wales

**A** If you only knew how many letters like this we get! My advice would be to try to borrow a Centronics lead from someone - preferably one that is currently running

**All points bulletins to  
Interactive Rescue,  
Atari ST User, Europa House,  
Adlington Park, Macclesfield  
SK10 4NP**

with an ST. Try this lead with a few switch settings but bear in mind that the printer probably only reads the switches if it is powered off then on again.

If this doesn't help, there's not much I can suggest. Try finding a supplier of the printers to see if you can take a look at a manual. Maybe one of our readers has a copy of the manual - if so, write in and I'll put you in contact with one another.

But let this be a warning to everyone. Without a manual you could be in for 32768 different switch positions before you hit the right combination!

### HIGH DENSITY HOPES

**Q** I own an Atari 1040ST and I would like to ask whether the HD module which is being offered by the Atari Workshop is reliable enough to work with all HD Drives. The problem is that I want to get it but I hear from people that it doesn't work properly with HD drives.

In fact, I was advised that although installation of the module is easy, getting it to work properly with HD drives, even with the one offered by the Atari Workshop, requires extensive modifications. Another reason is that HD Drives are ridiculously cheap in my country (around £26 for an original Sony drive) and not getting one is sort of odd here when all my PC owning friends have at least one 1.44Mb drive.

I need the extra storage capacity, but I wonder whether to take the risk. After all, £100 (for the kit) is no small sum, especially for a student like me. Should I instead wait for the official release of an HD drive by Atari?

Steven Chan, Republic of Singapore

**The problem with using a High Density disk system with the Atari**

**A** is that, once in High Density mode the interface tries to read all drives attached as high density drives. So copying from, say, an external double sided double density disk to the internal high density disk would be impossible, as the data could not be read from the external drive.

To overcome this, a modification is made to the High Density drive which switches the system to High Density mode only when the HD drive is accessed, defaulting to Double Density mode at other times. This modification would be required for all HD drives if you also wish to use Double Density drives.

The kit supplied by the Atari Workshop costs £99.95 (inc VAT) including the modified High Density drive, though the kit can be supplied without the drive for around £32.50. As you say, installation is quite simple, requiring three solder joints and one pin to be cut.

The Atari Workshop had some problems with their latest batch of HD drives, as their supplier had changed the specification, which meant that their modifications no longer worked correctly. However a solution to this problem has been found.



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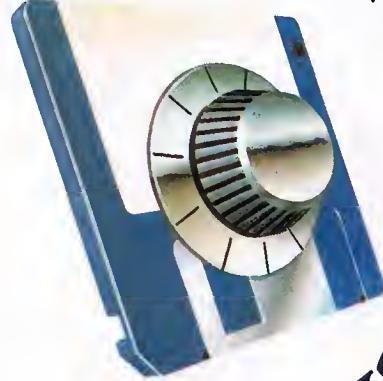


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# DESKTOP DRIVEN

## MASTER CLASS

**Simon Lawson runs through Neodesk 3**

Without doubt, NeoDesk 3 is one of the truly great programs available for the ST. By replacing the appalling Gem desktop it enhances productivity and makes the ST's file management system much easier to use.

Incorporating many of the user friendly features found on the Apple Macintosh, the ST's financially remote big brother, NeoDesk should be high on any serious ST user's wishlist.

Remember that no matter how nice custom icons may look, beware of using too many. NeoDesk imposes a limit of about 110 icons in the main resource file, but don't be tempted to go overboard.

In the first place, the more custom icons there are installed, the slower NeoDesk becomes. Operations like opening or sorting a directory window can slow down quite dramatically as NeoDesk works out which icon belongs to which file.

As a general rule, try to assign icons to file types, rather than to individual files. Giving an individual document or font a special icon doesn't really help you that much and it slows down the desktop. If you have a few programs that you use frequently, then by all means give them a unique icon, but on the whole, try to stick with the default icons.

Custom icons are one of the big selling points of NeoDesk, giving the ST a much more Mac-like appearance. Windows that are set up in Text mode rather than Icon View are also considerably faster. This is because NeoDesk has no icons to worry about sorting and displaying.

While on the subject of icons, the icon editor has a few tricks up its sleeve. As well as its own native .NIC files, the editor can open and edit a variety of files that contain icons.

The DC Desktop package from Double Click software includes an icon editor which stores icons in ICE files. By some clever programming, NeoDesk can read these ICE files and extract the icons from them for its own use.

Many Gem programs have an associated RSC file where they store all the information about their menus, dialogue boxes and icons. If an RSC file contains any icons, it can be opened by the Icon Editor and the icons edited. Icons can also be copied out of ICE and RSC files and used in NeoDesk NIC files.

Icons inside RSC files can be edited in the normal way and the RSC files resaved for future use. This facility allows many Gem pro-

## HOW TO GET STARTED

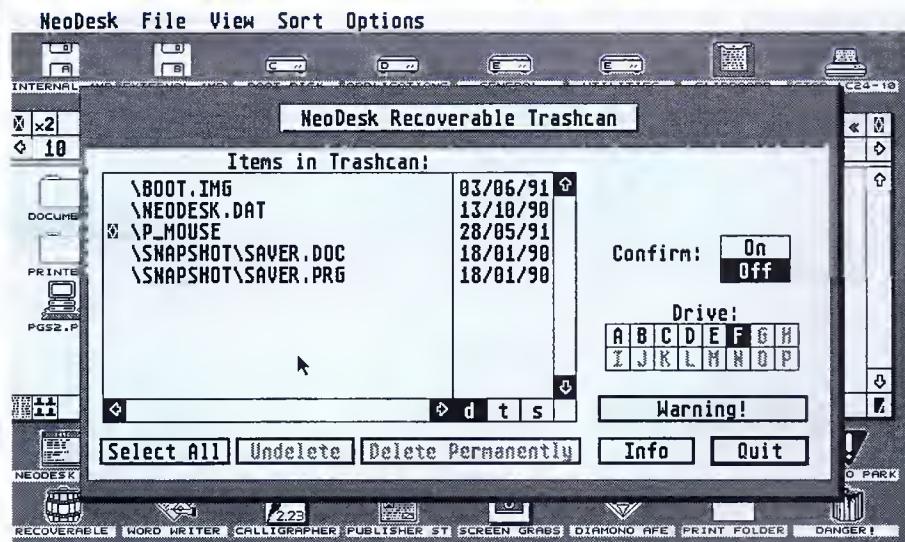
Once you have copied the program on to a hard disk or made working copies of the floppy disks, it's time to get started. The first time NeoDesk runs, you'll see an alert informing you that no Desktop INF file could be found.

NeoDesk will now examine your system and create a Desktop layout with icons for all your disks, hard and floppy. Two new icons will also appear, the Printer and Clipboard. Icons can be arranged where ever you want them, and those for programs, files and even folders can be dragged out onto the Desktop so you can find them easily. Once you are happy with your desktop arrangement, it can be saved to disk for

future use. The Clipboard is quite an innovation for the ST. It acts as a place to temporarily store files and folders while you are copying them.

Unlike a more conventional ram disk the clipboard grows and shrinks as you add or removed items. If you use the clipboard, it is very important to remember that whenever you run another program or quite NeoDesk the contents of the clipboard will be lost.

The "«" button allows you to cycle through any open windows, but moving them from the front of the screen to the back. This means that if a window is open but you can't see it, you can still find it without needing to close any other windows first.



*The Recoverable Trashcan takes the panic out of deleting files*

grams to be customised with new icons.

The NeoDesk Recoverable Trashcan is a great advance for the ST. It allows files that have been dragged to it for deletion to be recovered at a later date.

Information about these deleted files is stored in a hidden data file on the disk. The space used by these files is not returned to the operating systems, so if you delete a lot of files like this you can soon run out of space.

Because files deleted by the recoverable

trashcan still take up space, it is best not to use this utility on floppy disks. With only 720K of space free anyway, deleted files can soon fill up a floppy and make it unusable.

It is a good idea to check through your list of deleted files about once a week, and if you really have finished with them deleted them permanently to free up disk space.

Many ST public domain libraries have disks that contain NIC and ICE files that other people have created. If you're not very artistic,

these are a good source of new icons for your programs.

Rather than use the normal Gem windows, NeoDesk uses its own intelligent windows. For a start, NeoDesk allows the full system limit of seven windows to be open at once, not just four.

Although a vast improvement on ordinary windows, the NeoDesk windows can be slow to redraw.

## WINDOW ON THE WORLD

If you have lots of windows open at once, the screen handling can slow down to a crawl. It is so slow that it is possible to watch windows being drawn an item at a time.

There are several ways to work around this problem. The most obvious is to restrict yourself to only two or three open windows at any time.

If you really need more windows open, use the Show as Text option, as text windows are much faster. Also, try not to overlap windows, only open them side by side. Window handling is especially slow where one window has to be drawn over the top of another.

Window templates allow each window to display only certain files that match the search mask. For instance, to find all the DOC files in a window, simply set the mask to \*.DOC and only DOC files will be shown.

This is useful for mass file operations because you don't have to hunt through windows shift-clicking on files one at a time. It's very useful if you delete a vital file by accident.

NeoDesk does not install documents for programs in the same way as Gem. It allows two file extensions to be set for each program, and when a file is double-clicked the whole pathname of the file is passed to the applications. This ensures an end to the annoying "File not found" messages that occur on the normal desktop.

Windows can be individually sorted, whether as text or as icons. The "x2" button will clone the window, including the current directory path, which is useful if you're down in several layers of folders. Each open window can have its own individual search mask.

It is also possible to install any file extender as an executable program. For instance, if you use a program like BAPack that compacts programs but still leaves them executable, you can give packed programs a PAK extension.

Using the Extension part of the main Preferences dialogue you can set PAK files so they execute like a normal Gem PRG file.

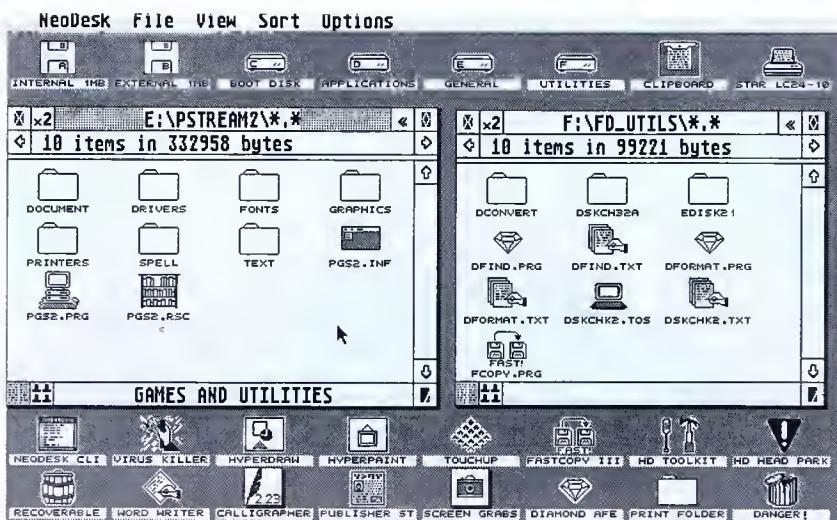
For users with a larger monitor than normal, whether the Overscan hardware hack, a Reflex graphics card or other large screen

like the Matrix or SM194 monitors, NeoDesk provides some tricks for managing your Desktop.

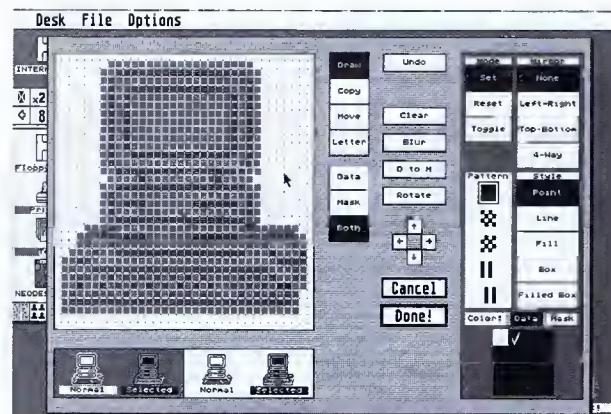
Each monitor or resolution can have its own unique INF file stored for it. These files are automatically loaded to match the resolution of the monitor, so if you switch monitors your windows will always be in the right place.

NeoDesk's custom dialogue boxes can be positioned anywhere on the screen, and their position saved. One useful trick is double-clicking on the patterned background of the dialogue will center the box in the middle of the screen, no matter what size your monitor may be.

One very useful feature than many people overlook is the Macro recorder built into NeoDesk. This useful piece of programming can be used to automate any task that is repetitive and done frequently.



The main Desktop showing the extra icons around the window frames



The impressive Editor screen

For instance, backing up a hard disk can be a pain, but the NeoDesk macros can do it for you. Another operation that lends itself to automation like this is the removal of all .BAK backup files from a disk.

Remember that any choices you make inside a dialogue box are not recorded. If a macro is running and a dialogue box appears onscreen, the macro stops. You have to make a choice in the box manually, and only when the dialogue disappears will the macro resume.

If you intend to use the macro system, once you have the macro running as it should, turn off as many warning and confir-

mation dialogues as possible. This allows you to create one desktop arrangement for word-processing and DTP, another for your database and still another for games.

Couple this with the macro recorder, and it is possible to set up a hot-key to run a macro that changes between desktops automatically.

Practically any key combination can have a macro assigned to it, including Shift, Alternate and Control keys. Macros are stored in a file with the same name as the Desktop INF file, but with a MAC extension. They are loaded automatically every time NeoDesk is booted.

NeoDesk is supplied with two important desk accessories. The Print Spooler and the Control Panel provide quite a few new features for the Desktop.

The Print Spooler allows files to be printed from the Desktop while you get on with other work.

Files are simply dragged to the printer icon on the Desktop and stacked up until the printer is free. If the print spooler is not installed, don't worry. Files dragged to the printer icon will still be printed, but you won't be able to do any other work until printing is finished. Users of either of the Atari laser printers should never install the print spooler as it clashes with the printer driver.

The Control Panel replaces the Atari-supplied DA of the same name. It includes several extra features, such as a screen saver to protect your monitor. It also allows you to set the system time and date and displays a digital clock onscreen.

One hidden feature of the control panel is useful for anyone who uses one of the PC emulators. NeoDesk can control 5 1/4 inch disk drives attached to the ST by adjusting the seek rate of the drive. This allows 5 1/4 inch disk to be formatted and used by the ST.

## ROUNDING OFF

NeoDesk is a very versatile and feature-packed program. This Masterclass has covered only a few of the time and effort saving features it contains.

Experimentation is the key to getting the most from NeoDesk. Almost anyone can install the program and start using it right away, but only after using it for a while will you realise how powerful it really is.

If you use the printer spooler on a floppy drive-only system, it is important to keep the same disk in the drive all through the print. NeoDesk needs to be able to find the original file while it is being printed, and if you remove the disk which has the file on it, the print spooler will not be able to print the file.

The NeoDesk manual is an exceptionally well written and presented document, with plenty of screen shots. It explains all of the features in simple terms and shows how they can be used to get the most from the program. Of all the utilities available for the ST, NeoDesk is without question one of the best. A complete replacement for the built-in Gem Desktop, it has earned widespread acclaim.

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 "D" = Double Sided Disk      "X" = 1 Meg Ram

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 370 Digidrum demo from Microd.  
 570 CZ SOUNDS, xfer data from CZ101 to ST midi. MASTER, demo sampled music sound.  
 371 Digitised music Secret Separation \*D\*  
 550 Digital sound demo, Degas & Neo graphics. Quartet demo, 4 channel sequencer.\*C\*  
 373 Digitised Wind Up by SAGA. \*DX\*  
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 720 • MUSIC WRITER, create music on screen, Also Sound Chip Controller.  
 721a SOUNDTRACKER PLAYER & MODULES. ZOWEE, TIMDEMO, AUSIFOOT, GRILLED MUSIC!, more ? 2 Disks !!  
 536 CASIO CZ SOUNDS & EDITIDR, 2 Casio CZ series synthesizer editors/librarian programs.  
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 535 ACCOMPANIST 2.3, midi sequencer program. 16 voice 96bpm resolution. Loads of features.\*C\*  
 768 KYLIE MINOGUE, digitised sound demo with a slide show of Kylie.\*D\*  
 753 XBIOS Music Construction Kit, a powerful song editor.  
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 750 SOUNDTRACKER PLAYER & MODULES. D-DREAD1, D-DREAD2, PAT-MIX, RVB DEMO, SPREAD.  
 767 MICHAEL JACKSON - BAD, digitised sampled sound & great graphics.  
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 397 DOODLE, This disk has the original Mono & Colour versions. NEOCHROME v0.6.  
 578 ST GRAPH. A comprehensive graph, handles Bar, Horizontal/Stacked Bar, Line & Dot Charts.  
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 388 A Pics disk includes Mona Lisa, Moon, ST keyboard, Planet, Yohoo, Saturn. +  
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 880 COLOURBURST 3000 v0.2, This program allows you to add different colours to pictures from other packages. \*CX\*  
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 809 AIM 3.21 An image processing package, plenty of docs. \*DX\*  
 810 AIM v3.21 disk. This has colour images & macros. \*DX\*  
 812 AIM v3.21 disk 3. Three macro demos, PCB analysis, shading correction & Abingdon Cross Benchmark. \*DX\*  
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 393 THE ARTIST, A great drawing package with all the normal options. \*M\*  
 805 HiRes slide show of California Girls.\*M\*  
 464 NEOCHROME MASTER, This is a recent upgrade of Neochrome. Inc. Extra cut & paste, etc. LOW RES only.  
 469 JLCAD, a good shareware CAD package. Lots of features (2D)Add-ons available. \*DX\*  
 471 FONTS, Calamus PD fonts from USA. Advert, Babyeth, Barnum, Carolina, Casual, Celic, Chancery Bold, Chancery + others \*D\*

### COMMUNICATIONS DISKS

- 364 PACK-ET-TERM v3.3A, a great radio package. YARP split screen RTTY terminal.  
 316 XMODEM, MODEM 7, a multiple file transfer utility, transfer a whole disk in one go. Plenty of docs.  
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 873 B/STAT v 2.01 This is a sophisticated graphing & statistical analysis program \*D\*.  
 874 OPUS V2.2. This program is a GEM based spreadsheet & charting program \*DX\*.  
 543 WG DATA, database, custom screen layout for data input. Comprehensive docs.  
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- 525 Faces & Eyes, concentrating upon expressions, Horses, Building plan symbols & some different Christmas images.
- 526 American trademarks from the 1920's & 1930's. Some very atmospheric images.
- 527 Various borders, tints etc. High arty & cartoons - Picasso to small fluffy animals.
- 732 IMGSHDW, IMGVIEW show progs. fruit, over 20 arrows & Access symbol.
- 733 Occasional Clips, Various Characters etc,
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- 354 Diamond Miner is a multi-screen game with a built in games editor. Snafu & a card game called Skat.\* M\*
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- 589 STEVE'S COMPACTED DEMO DISK NO.3 - Micromix, Stingray & Ballit. \*D\*
- 569 SLATATANIC CULT, Demo I & II \*D\*
- 358 GFA BASIC 1, A run-time version of GFA Basic is included with plenty of samples.
- 549 POOLS predictor, that includes a data
- 462 AUTOROUTE DEMO, Demo version is highly useable, covers the south of England.
- 465 POOLWISE V3.5, Sophisticated pools predictor. MED RES.
- 586 LIFE'S A BITCH, demo \*D\*
- 435 NEWGEN V4: very good Genealogy prog. Can print family trees etc.
- 437 BUSINESS LETTERS, 100 business style letters. SPREADSHEET, visical clone.
- 587 STEVE'S COMPACTED DEMO DISK NO.1 - Bat Demo, Micromix II, Fujibonk, \*D\*
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- 821 POV6, Space ace demo, Starwars Rap, Bouncing ball + others. \*DS\*

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- 326 Arcade games including Warzone, Daleks, Haunted House & Mousemess.
- 317 The games on this disk are Battleships, Checkers, Mazel(ACC), Megaroids(Mono) Pool.
- 547 ADDITION, a great version of the card game patience, great graphics (not STE).
- 329 Checkers, The Original Adventure, Pool & a fun Chess game. \*M \*
- 345 PUZZLE PUZZLE, jigsaw puzzle games from Germany.\*M\*
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- 566 DIE ALIEN BLDB, a great shoot 'em up.
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- 508 ATDMA is a mentally challenging game for 2-4 players. KILLERCHESS, AMMDTRACKS a race & blast'em game.
- 348 PACMAN, TRIVIA QUIZ, YAHTZEE
- 511 SCANNER a checkers game. SPACEWAR, 2 space ships battle it out
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# **Nobody buys a monochrome monitor to play games but a look at what's available reveals a few surprises for the mono user who's after a bit of relaxation. Andrew Wright investigates**

**T**he ST is a versatile machine supported by a wide range of so-called "serious" software as well as games. However, games tend to use the ST's low or medium resolution colour screen modes, either on a TV through the built-in modulator or on a dedicated colour monitor, whereas wordprocessing and other text-based activities are best in high resolution monochrome mode.

A monochrome monitor, such as Atari's SM124 available for around £100, produces a clear, flicker-free image made up of black text or graphics on a paper-white background, close to what you get from the printer. It is the only real choice for the professional user, whether for programming, desktop publishing or producing the latest top 10 hit on a MIDI-based set-up, as the clear display permits long hours of use.

This presents a problem for ST owners

chess. As long as you don't expect to go out and buy a new one each week, there is enough to keep you well occupied.

Many of the games, including the excellent Breakout clone, Bolo, and a large number of PD games, come from Europe, and Germany in particular. Over there the colour monitor is hard to find according to Camy Maertens of Budgie UK, whose licensware catalogue offers a selection of interesting mono games including the classic Othello, the shoot-'em-up Space Duel and an amusing adventure, From Little Acorns.

"The ST took off in Germany as a serious machine with a high resolution monitor for serious applications," says Belgium-

where the object is to take on the role of leader of an earth-based empire and dominate the rest of the galaxy using any military, economic or diplomatic means available.

There is a vast depth to the game with taxation levels, trade embargoes and a variety of military strategies to choose from. If the going gets rough there are even subordinates to look after some aspects of the game. Add a fast, easy-to-use interface and the game deserves a place on every mono user's shelf.

Mindscape's Balance of Power is similar, a little

born Maertens. "When it arrived in the UK, it was marketed purely as a games machine with the result that we now have an installed user base predominantly using TVs or colour monitors. Only around 25 per cent of users are likely to have a mono monitor."

## **HOT CONTENDER**

"On the brighter side there are a handful of really top class games that run in high resolution. Although they tend to be more strategy/adventure style games than arcade action, there is definitely something for everyone".

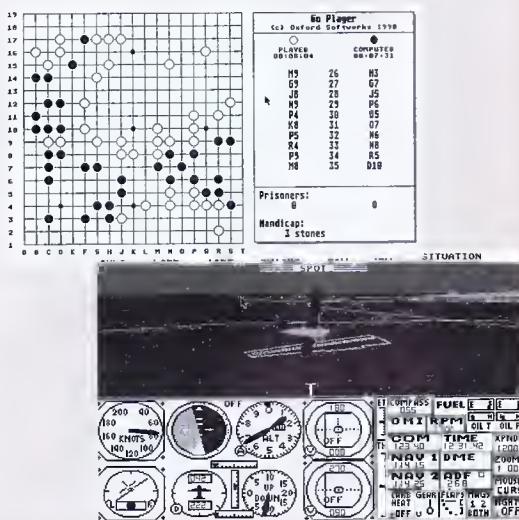
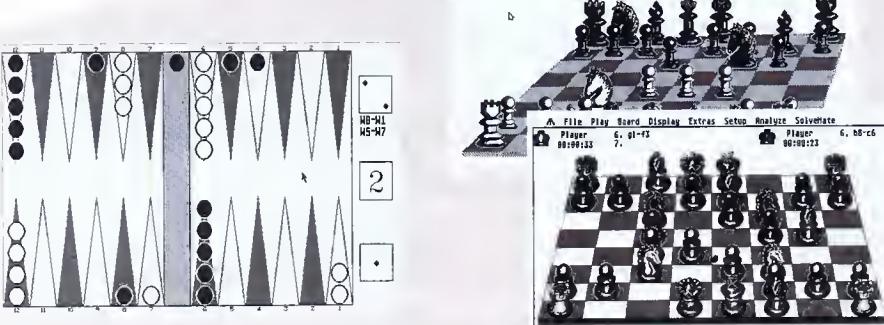
Electronic Arts' Imperium has to be a hot contender for the best game available in mono. It is an addictive game

older and not as slick but equally complex and involved. Wargamers will be happy with the classic ST game, UMS or Universal Military Simulator, from MicroProse which actually benefits from the clarity of the mono screen.

Unfortunately, the sequel, UMS II does not run in mono. Another to look out for is Intel's Empire, a superbly simple game but sadly no longer available. Buy it secondhand if you see it.

Magnetic Scroll's new release Wonderland, strangely enough, is another game with a unique interface, called Magnetic Windows. This extraordinary window-based command system marks a radical departure from the command line found in most adventure games.

No longer need



you type "Get item" – just click on the icon and drag it into the inventory window instead. Text can still be entered but the game moves much faster and is much more fun using the icons and windows. After all, that's what the ST is all about.

### THE QUESTS

Other adventures which look equally entertaining in mono are Sierra On-Line's Quest series including King's Quest 1–4 and Police Quest. Surprisingly, for a series of graphic adventures, the mono versions are just as

systems. Without the range of colours available in low resolution, a technique known as cross-hatching has to be used to differentiate between areas of the screen.

Unfortunately there are only about half as many cross-hatching patterns available as there are colours and, as a result, fewer objects and backgrounds can be used. Nonetheless, games

with two programs in particular that are capable of running under mono. Oxford Softworks' Bridge Player Galactica offers little in the way of graphics but plays a good game.

Atari's own Bridge Master plays a less competent game but the graphics are nicely done, particularly in the way each hand is dealt out card by card, building up a good, realistic atmosphere. A nice companion program called Bridge Tutor, is also available for those who need to learn the game completely from scratch.

Other classic games which need little explanation are the Oriental classic, Go Player, and another traditional game, Backgammon Royale, again from Oxford Softworks. Even football is covered to some extent, although not in the same way as the many 3D simulations currently topping the software charts.

Budgie's Football 88 and ESP Software's Football Crazy are two examples of the game on a strategic level. For a similar treatment of the US soccer game try Headcoach from Qualsoft.

There is plenty of support for mono users in the PD sector, as you might expect. The catalogues of the top libraries offer a wide selection of games, with the ST Club, for example, listing over 40 such games from adventures to arcade action. My own favourites are a German version of Risk, Napoleon, and that ageless classic, Invaders.

There are games available for the mono user, whatever the budget and whatever the taste. The range may be small but it makes up in quality what it lacks in size. Seeing the world in black and white doesn't mean life has to be dull!

# MONOTONY

watchable despite the loss of colour. Langkor's Mortville Manor is also a worthwhile adventure with some excellent atmospheric sound effect.

For those who want more action there are flight simulators such as SubLogic's Flight Simulator 2 and HiSoft's Proflight. Although it is one of the oldest sims around, FS2 is still an excellent buy, not least for the extra scenario disks and books available.

Proflight is much newer and has an equal amount to offer in terms of depth and appeal. Neither of them are as effective in mono as in colour but the graphics are certainly adequate for most purposes.

The lack of arcade games reflects the difficulties of programming for mono

such as Budgie's Hostile Reception and Rainbird's Starglider 2

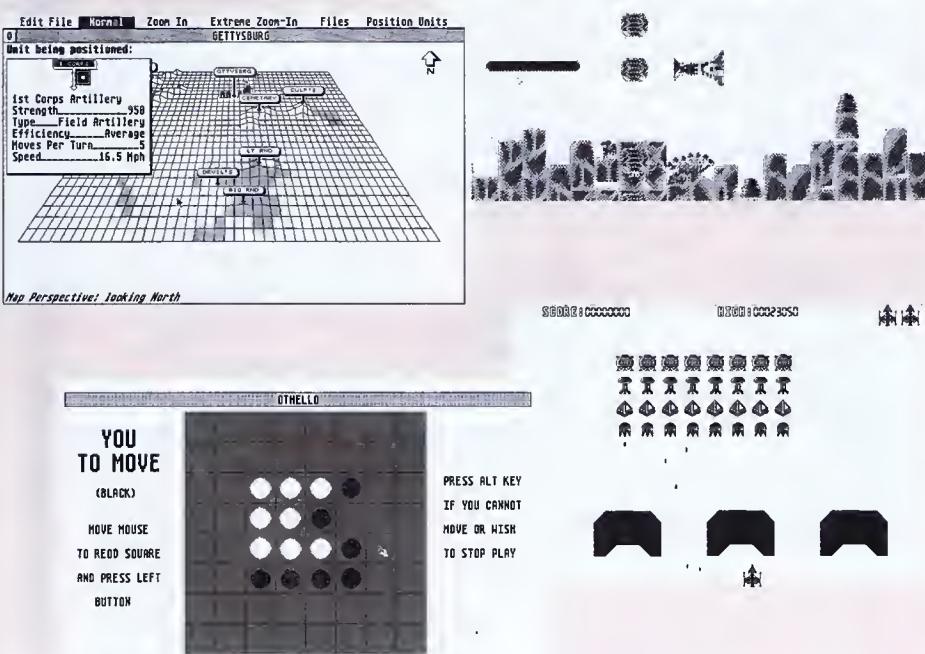
are well worth looking at for the frustrated arcade

blaster who's after some fun.

At the other end of the games spectrum are the classic games such as chess or bridge. The majority of these programs support mono as buyers are more likely to be serious users. In addition, many of them use Gem which makes it much easier from a programmer's point of view to build in mono capability.

For chess on a mono monitor, Oxford Softworks' Chess Champion 2175 and Mindscape's Chessmaster 2000 are excellent programs with plenty of features and massive libraries of opening moves.

Bridge is also well supported on the ST,



### Be warned!

**When ordering games from mail order companies, don't rely on their advice as to what is mono compatible and what is not unless you know and trust them.**

I contacted several and most couldn't help. This is understandable, if a little disappointing, as they operate on low margins selling software in bulk.

What is unforgiveable, however, is providing misleading information. One mail order company blindly stated that all its games ran in mono – to quote the voice on the telephone: "They just look a bit different that's all".

Legally, if you buy a game on the understanding that it is mono compatible and then find that it isn't, you have a right to a refund. Proving this when talking over the telephone to a company dealing with hundreds of enquiries a day is another matter.

If you are not sure, get confirmation in writing before you buy or better still, contact the software house or distributor first.

# CASTLE SOFTWARE

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STU SEPTEMBER

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Atari ST User September 1991

# Multi-coloured swap-shop

The two main areas in which the STE improves over the ST are in its sound and graphics. On the audio front, sound cartridges of various descriptions are available to soup up your humble ST. Until now, however, ST owners have been stuck with a mere 512 colour palette, while STE owners gleefully selected from a glorious 4096.

The snappily titled JRI ST4096C Colour Board from TC Developments is a simple plug-in upgrade which allows the ST access to the palette used by the STE. For ST owners who want access to the extra colours, without the expense and trouble of buying an STE, this is a neat solution.

## FITTED UP

The board itself is very compact indeed. Hardly bigger than the two video shifter sockets it contains, it fits neatly into most STs. The two video shifter chips used by the board are identical. Therefore, the board is supplied with one, and the second one comes out of your ST.

Alternatively, you can buy the board with no video shifter at all and supply both yourself. This will save you £30, and so is worth thinking about.

On Mega STs the fitting could hardly be more straightforward. The video shifter chip needs to be located, removed, plugged into the vacant socket on the board, and then the whole board plugged back into the shifter socket. At most it's a 15 minute job.

Fitting to the non-Mega STs is slightly more complex because the video shifter is contained within a metal box. This box needs to be opened and the lid removed in order to fit the board.

Some STs may also require a small amount of soldering if the video shifter is soldered to the motherboard, and on some machines there are components situated very close to the shifter socket. To fit the board in these instances, a spare socket is provided which can be used to increase the height of the board.

The instructions provided were clear, although with so many ST versions available, some pictures would help. One problem can arise when the ST already has an upgrade which uses the video shifter socket.

This is the case in many ram upgrade boards. Although the board works quite happily alongside such upgrades, fitting becomes a little more tricky, and may involve



The ST4096C Colour Board installed in a Mega ST. The board contains two video shifters, one of which has been removed from the ST. It is a tight squeeze next to the power supply, which had to be removed for fitting

## Now you can have all the advantages of the STE's extended colour palette without the expense of buying one

removing and then re-fitting the ram upgrade.

The board comes with a disk containing a number of utilities, including a patch program which allows your own software to take advantage of the extra colours now available. As my first test I booted up Neochrome Master, which was on our coverdisk back in June.

## PATCHING NEOCHROME

As soon as the STE mode was selected, I had access to all those shades that have only ever seen light on my STE before. If you don't have this version of Neochrome, the disk contains programs which will patch earlier versions of the program to enable them to use the extra colours.

Other software on the disk includes a Neochrome slide show program which fades the pictures in and out using the 4096 colour palette. This fading is twice as smooth as that seen on a "normal" ST.

The pictures provided are all black and white digitised pictures and look excellent because of the more accurate grey scale allowable using the board.

There is also a program which displays all 4096 colours scrolling up the screen, and source code is on the disk too – in Assembler

and C – so that you can take advantage of the extra features of your own software.

**Product:** ST4096C Colour Board  
**Price:** £79.95 (with shifter) £49.95 (no shifter)  
**Supplier:** TC Developments, PO Box 15, Wetherby, West Yorkshire, LS22 4ZE  
**Telephone:** 0937 581145  
**Configuration:** All colour STs

## THE BOTTOM LINE

**FEATURES:** Compatible with most software. Much cheaper than upgrading to an STE.

**EASE OF USE:** The source code included allows you to use extra features within your own programs. Possible fitting problems with some STs.

Features
Excellent
Good
Average
Bad
Appalling

Ease of use
Excellent
Good
Average
Bad
Appalling

# Junior's BIG

**C**alligrapher is not an entirely new product. It was first released three years ago by Computer Concepts, the creators of Fast Basic. However, the first release had some serious bugs and soon disappeared from the market.

In spite of the problems with this first version Calligrapher soon built up a dedicated following. Three years after it was removed from the market there were still people who wouldn't use any other wordprocessor..

All that is now history, and Calligrapher has re-emerged with its problems placed firmly behind it. Two versions are now available, the full Professional and a cut-down Junior version. This review will concentrate on the Junior incarnation, henceforth referred to as Calligrapher.

The package consists of three single-sided disks and an excellent manual. Disk one contains the program proper and the installation program, while two and three are crammed with printer drivers and multiple font files.

When installation is complete, the computer must be rebooted so it can load G+Callig, a customised replacement for the normal Atari Gdos program, and the Calligrapher LINE\_ARC program. Calligrapher won't run without these two installed in memory.

It is supplied copy protected and you have to insert your original master disk every time you run the program. If you register your copy, you will receive two more master disks.

The first contains an unprotected copy of the program and a Thesaurus. This copy carries your name in the "About..." dialogue as a deterrent to illegal copying. The fifth master disk contains three more font families.

The manual provides an excellent introduction to the program with several easy to follow tutorial sections, as well as more detailed explanations of the program. There is also a pull-out quick reference card with all the keyboard shortcuts and search codes on it.

## ORIGINS AND IMITATION

Calligrapher is very similar to MacWrite, a powerful wordprocessor for the Apple Macintosh. It even goes so far as to duplicate some of the Mac standard keyboard shortcuts.

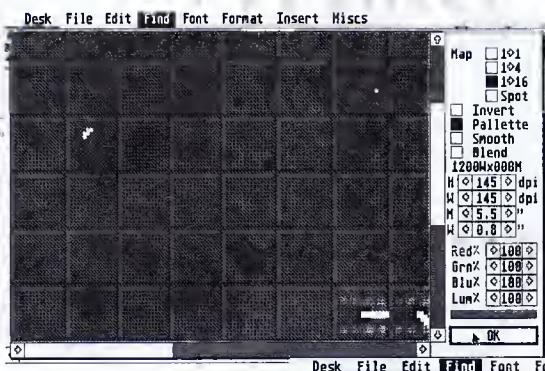
The program makes very elegant use of Gem, even using its own Desktop to make some functions more readily accessible. Disk and printer operations can be performed by dragging document icons to the corresponding device icon.

Also in Macintosh fashion, if a block of text has been selected then any new text that is typed in will replace the selected block. All operations are fully buffered so if you make a mistake, pressing the Undo key will restore your work.

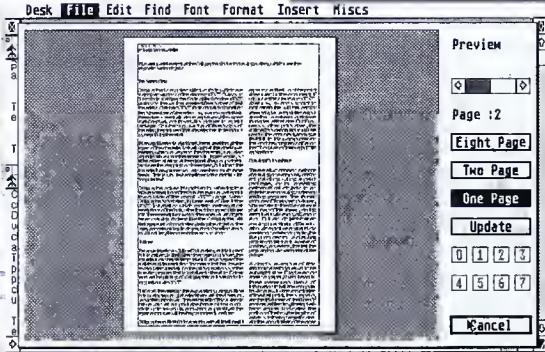
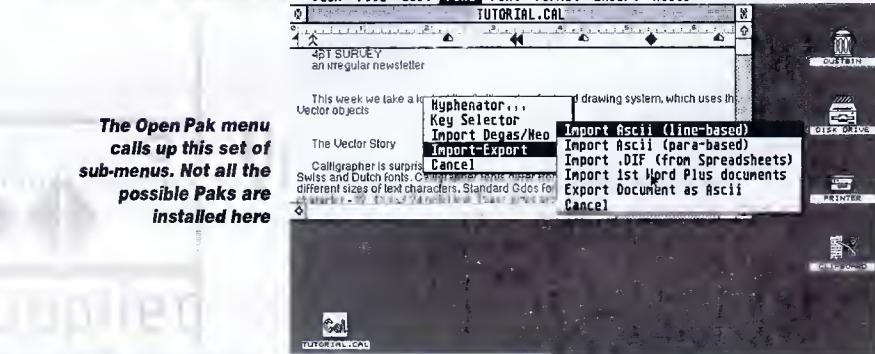
There are shortcuts for correcting common typing errors. One of the most frequent mistakes is a transposition, where two letters are typed the wrong way round. If "the" becomes "teh", pressing Control X will correct it.

One area in which Calligrapher stands out

**Simon Lawson sizes up the smaller sibling of the brilliant Calligrapher Professional and is well impressed**



This Pak provides some very sophisticated image processing options for converting Degas or Neochrome files to IMG format



Calligrapher has a Print Preview function to let you see thumbnail sketches of pages before they are printed

is in its search and replace functions. Any piece of text can be searched for, and the search can be made case sensitive.

What makes the program special is the way it can search for embedded style and formatting codes in the main text. So for instance, all the bold text could be changed to superscript italic with a single operation.

Calligrapher has a good spelling checker. The 80,000-word dictionary has English – not American – spellings, and French, German and Spanish dictionaries are also available. Eight dictionaries can be used at once when spell checking a document.

The ability to import graphics is now fairly standard on ST wordprocessors, but once again Calligrapher improves on the norm. The standard Gem file formats, .IMG and .GEM

are supported as its native format. Any object-orientated graphics in the .GEM format can have their cropping and scaling set before they are imported.

A Calligrapher extension is provided with the package that allows the Degas .PI? and NEOchrome format files to be converted to .IMG. The DFX standard used by CAD packages is also supported, and an additional program is provided to convert DFX files to the more useful IMG format.

Once a graphic has been imported it can be resized and positioned on the page. They can also be linked to pieces of text, so when the text is moved the picture automatically goes with it.

Graphics can be hidden and only an outline of the graphics frame shown onscreen.

# break

This not only speeds up the screen display, it also saves about 20K of memory per graphic. A separate utility called Snapshot enables screens to be grabbed and saved to disk.

Many of the more powerful features are written as Overlays or Paks. These are held on disk as individual files with .CPK extension. They appear under the Find menu, and open a new set of sub-menus.

Five Paks are supplied. The first deals with importing and exporting text, and it can handle First Word Plus documents, and several varieties of Ascii text file. It can also cope with the DIF files created by some spreadsheets.

The Graphics Pak allows Degas and Neochrome pictures to be converted to .IMG format and used in Calligrapher documents. Pictures can be cropped and scaled, and also have their resolution adjusted. Full colour mapping is supported to convert colour pictures to monochrome.

The Key Selector is most useful if you're using a font that has non-English characters in it. The Selector presents a table showing all the characters available.

One of the most useful Paks is the Calligrapher Help system which offers assistance on every aspect of the program.

## FONT VARIETY

The program is also exceptional in its control of fonts. Any size from a tiny 6 point to a massive 128 points can be used, suitable for anything from footnotes to banner headlines. There is no limit to the number of fonts which can be used in a document.

It is supplied with two complete font families as standard – Holland and Zurich. These are Times and Helvetica clones offering the standard serif and sans serif faces.

Registered users gain another three sets of fonts. Unotype (Courier) is an attractive typewriter-style font and Math Symbols contains Greek and mathematical symbols. The last font family is Ornaments, a Zapf Dingbats clone with circles, squares, pointing hands and various other symbols. Other fonts are available separately.

In order to improve the quality of its printed output, Calligrapher uses a proprietary system of vector fonts, similar to those used by Calamus. Unlike the normal Gdos fonts, vec-

tor fonts are stored on disk as mathematical descriptions of the letters.

They can be scaled up or down to any size without becoming jagged. Vector fonts ensure that your hard copy looks good no matter what type of printer you have. Even a 9-pin dot matrix printer will always be driven at maximum resolution.

If you have a hard disk and 2Mb of memory going spare then Calligrapher can also display these vector fonts onscreen for a true WYSIWYG display.

LINE\_ARC can be used with some other Gdos-compatible programs so they too can enjoy the benefits of vector fonts.

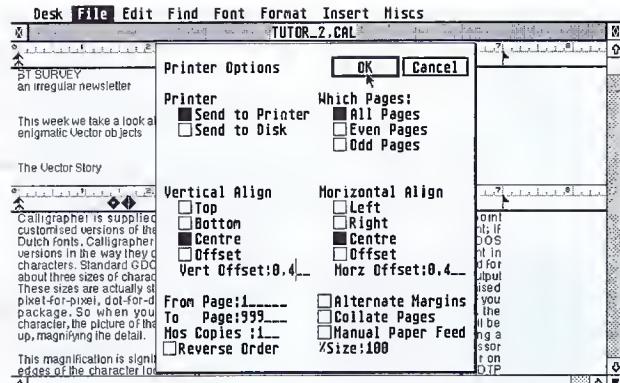
## COMPETITION

Calligrapher Junior faces some stiff competition in the middle ground of the wordprocessor market. That's Write, WordUp and to some extent Script have all staked their claims here. Calligrapher competes well in several respects.

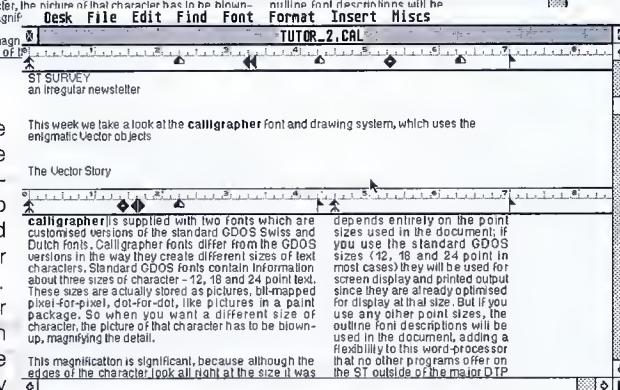
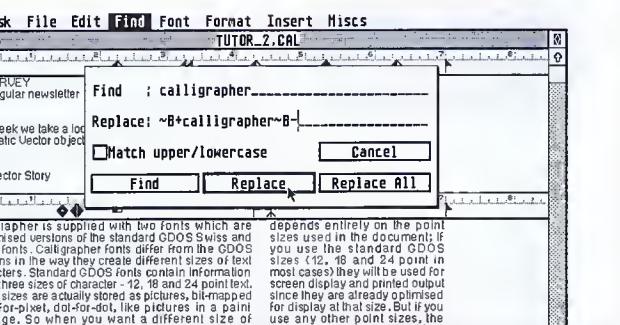
But unfortunately, Calligrapher leaves itself open to criticism in two important areas. Despite recent improvements, it is still very slow at redrawing its screen. Version 2.14 introduced a new screen drawing routine which is considerably faster than the old one, but still too slow. Sadly Turbo ST seems to be totally incompatible with Calligrapher, causing random crashes.

The other point is the way the dictionary works. For a spell check only a small header file is loaded into memory. Because the main part of the dictionary is never loaded into memory but held on disk, checking even a small document takes a long time.

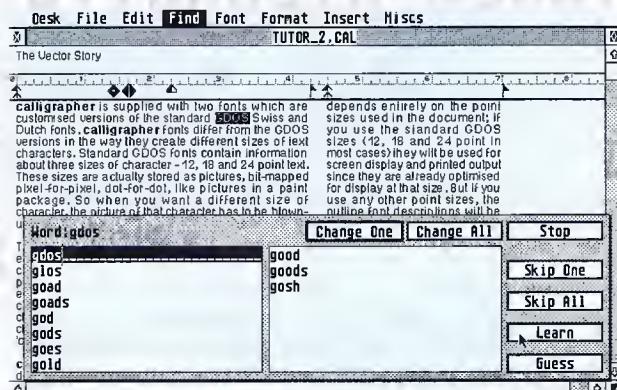
The more free memory available, the more of the dictionary can be made ram resident, so speeding up the spell check. A hard disk speeds up the spell checker. All in all, despite these minor quibbles, Calligrapher Junior is



**This dialogue controls the way documents will be printed**



**The Search and Replace dialogue. In this case the word Calligrapher is replaced with the same word, but now containing the control characters for bold text**



**The spelling checker in action. It also suggests sensible alternatives for misspelled words**

## THE BOTTOM LINE

**FEATURES:** Too many to mention here. An outstanding package.

**EASE OF USE:** Generally good. Spell checking and screen redrawing slow, be slow

Features	Excellent
Excellent	Good
Good	Average
Average	Bad
Bad	Appalling

Ease of use	Excellent
Excellent	Good
Good	Average
Average	Bad
Bad	Appalling



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a practical guide to 3D solid assembly programming

Andrew Tyler



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Andrew Tyler, Research Physicist, Manchester University, UK

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185058 217.3 264pp May 1991 (pr) £12.95/\$26.80  
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Conrad Bessant, Software Consultant, Bedfordshire, UK

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# ASPECTS OF THE ATARI ST

*Atari ST User brings you seven special pages devoted to your very own favourite ST subjects. There's something for everyone – every month.*

## MIDI AND MUSIC

PAGE 106

*Gajit's Sequencer One, a Baud In A Box upgrade, Virtuosos and Prodigies and DAT have Ian Waugh enthralled this month*

## EDUCATION

PAGE 109

*Pat Winstanley looks at what's available for the youngest of ST users, including Disney games, Fun School 3, Mix and Match*

## COMMUNICATIONS

PAGE 111

*Eddie McKendrick takes a long hard look at British Telecom's Micronet service. Find out what conclusions he drew inside*

## EMULATION

PAGE 113

*The quest for ever-faster PC emulation on the ST has Günter looking at A-Speed and ATonce's 16Mhz versions*

## ADVENTURES

PAGE 115

*Ambushbug, England's finest investigative adventure game player, takes over the Adventures column*

## DESKTOP PUBLISHING

PAGE 117

*News of Timeworks improvements in the pipeline, plus new clip art and a DTP user group for ST owners*

## BUSINESS

PAGE 119

*Dont know the difference between tax avoidance and tax evasion? Phil Trory explains plus advice on spreadsheets*

## Sequencer One, Band-In-A-Box and what's more, there's DAT

Gajits' Sequencer One, one of the most affordable yet friendly budget-priced sequencers at £89.99, has undergone a few small upgrades bringing it to version 1.06.

These include a full implementation of Midi Song Pointers, the ability to carry out Block operations with the mouse, drop into Record mode from Play and select which Midi messages are transmitted when Stop is pressed.

But perhaps even more interesting, especially for users with limited musical experience, is the launch of the Hit Kit. This is a collection of musical building blocks which you can assemble in any number of combinations to construct a song.

They are grouped into seven musical styles – ballad, blues, disco, house, Latin, reggae and techno – which contain up to six instrument parts – bass, drums, chords, middle, filling and top.

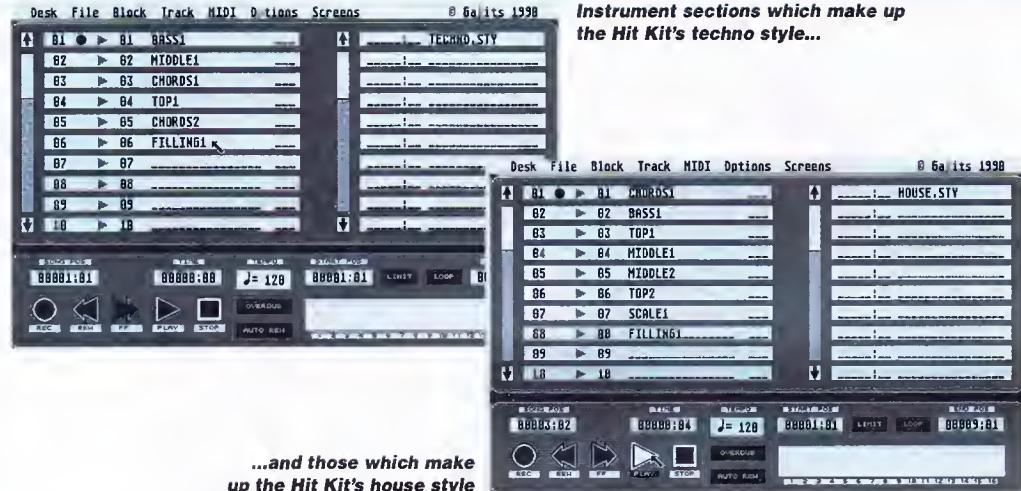
The drums use Roland's MT-32 drum map which you can edit. There are 82 drum patterns and 124 other phrases, and Gajits have arranged some into seven eight-bar loops so that you can hear what they sound like in context.

You can easily use these as the basis for your own songs but it's quite easy to assemble your own. Be original!

The Hit Kit is £30 but Sequencer One owners qualify for a £5 discount. This is to distinguish them from Notator, Cubase and Pro-24 owners who will have to pay full price when a version is released for these programs – which will be soon.

If arranging isn't your strong suit, the Hit Kit is well worth checking out.

The Hit Kit Volume 2 is due



...and those which make up the Hit Kit's house style

# Hit me with your rhythm kit

soon, too! More information can be obtained from: Gajits, I-Mex House, 40 Princess Street, Manchester, M1 6DE. Tel: 061 2515/4.

### MORE BAND-IN-A-BOX

Band-In-A-Box, which was reviewed in December, has been updated to version 4.1. Like Freestyle (see News Round-Up) it's an accompaniment generator. You enter a chord sequence and it generates drum, bass and piano parts in up to 24 styles.

The major innovation is the ability to create your own rhythm styles including endings, a feature which the earlier version lacked. You can create lots of different patterns for one style and give them weights to control the probability that they will play. You can even assign weights to drum hits so they can use different drum sounds each time through.

Playback masks can be assigned to patterns which allow

them to play only on certain bars. A mask of 1, for example, will only let a pattern play on odd bars, 2 on even bars, 3 on every third bar and so on.

Drum patterns are entered on a grid in step time but the bass and piano must be recorded in real time and can't be edited. The main drawback is not being able to save the style with a song – they must be done separately.

You can now also enter lyrics on to the score, start playback

from any bar and change the style midway through a piece. A major operational improvement is faster screen redraws.

The price of the program remains the same at £45, although the upgrade itself is a comparatively hefty £20.

### WHEN THE MUSE STRIKES

One of the fastest sequencers around, Virtuoso, written entirely in machine code, has been

## NEWS ROUNDUP

● Zone Distribution are now the official UK distributors for Dr T music software. Programs include Dr T's heavyweight KCS (Keyboard Controlled Sequencer) with PVG (Programmable Variations Generator), a computer-assisted composition routine. Other programs include a wide range of voice editors and librarians for most popular synths and expanders.

Zone ask all users of Dr T software who haven't already done so, to register with them so Zone can keep them informed of updates and new programs.

Zone have acquired UK distribution of Freestyle by German company Frohlich. See the Frankfurt Music Fair report in May's issue for details.

It works on similar lines to Band-In-A-Box but is considerably more sophisticated. It can create up to five instrument parts – drums, piano, bass, guitar and brass – and play up to eight song sections such as intro, fill, variation and ending.

Thirty-two rhythm styles are supplied and more can be loaded from disk. Freestyle will cost £149 and there will be a special price for all Band-In-A-Box owners.

● Zone have also added a couple of educational programs to their range – the Advanced Guitar Tabulator and the Advanced Keyboard Tabulator. These can display around 3,000 chords which you are encouraged to finger and play. You can hear them through the Atari monitor or via Midi.

You can also record chord sequences into a playlist which will play back via an integrated sequencer and can be saved as Midi files. You can print the list to a dot matrix printer, too. The Tabulators are £99 each. More



Sequencer One's Step Editor showing the notes in one of the styles

Title:	Jazz? Y	Instrument #'	BassA 8	BassB 8	PianoA 8	PianoB 8	Tempo:115
A pattern	5 5 5						
B pattern	5 5 5						
Fills	5 5 5						
End Drums							
A 0 beat	5 5 5						
A 4 beat	5 5 5						
A 2 beat	5 5 2 5						
A 1 beat	5 5 5						
B 8 beat	5 5 2 5 5						
B 4 beat	5 5 5 5 2						
B 2 beat	5 5 2						
B 1 beat	5 5 5						
End bass							
A 0 beat	5 5 5						
A 4 beat	5 5 5 5 5 5						
A 2 beat	5 5 1 4						
A 1 beat	5 5 5						
B 8 beat	5 5 5						
B 2 beat	5 5 5						
B 1 beat	5 5 5						
(R)ecord (P)lay pattern							

Creating your own style in Band-In-A-Box

Band-In-A-Box's new-look main screen

The screenshot shows a musical score for 'Can't Hurry Love' in Jazz Swing 4/4 key C at tempo 170. The score includes a piano keyboard graphic at the bottom.

upgraded to Version 2. The major addition is the inclusion of a notation facility which is called Score Edit.

It is now also compatible with Plasmec's ADAS hard disk recording system and has a hook into Gem so you can run correctly-written Gem programs and desk accessories. The VAT increase now makes Virtuoso £305. Upgrades to existing users are a most reasonable £5.50.

Prodigy, the baby Virtuoso, is now available in two versions - with or without Score Edit. The original program is still £135 but the Score Edit version, and upgrade fee, is £40 more. The present versions of Score

Edit only print to Epson-compatible printers but other printer drivers are on the way.

The Digital Muse is collaborating with Take Control who publish Music DTP. Using Take Control's Reflex Graphic Card you can run two monitors at once and see Virtuoso on one and Music DTP on the other. You move from one to the other simply by sliding the mouse off the edge of the screen.

The upgrade coincides with a move for the Muse to: 82 Tachbrook Street, London, SW1V 2NB. Tel: 071 828 9462.

Take Control is still at: Jonic House, Speedwell Road, Birmingham, B25 8EU. Tel: 021 7066085.

about these new programs soon. Meanwhile you can get more info from: Zone Distribution, 5 Abbeville Road, London, SW4. Tel: 081 766 6564.

• New company Forefront Technology have announced some new nifty Midi gadgets. The FT3 (£39) performs several functions. It can transmit Patch Changes on any Midi channel and merge a signal with its own output. Patch Numbers can be stored in up to eight User Memories. It can also test Midi leads and act as a data filter.

More from Forefront Technology, 2 Rebecca Gardens, Silver End, Witham, Essex, CM8 3SR. Tel: 0376 83920.

• TMS (The Music Network), the online network for hi-tech musicians, have reduced their minimum billing charge from £10 per month to £6. TMS offer electronic mail and fax services and have specialised online bulletin boards.

More information is available from: TMS, PO Box 5, Somerton, Somerset, TA11 6SX. Tel: 0458 74281.

• Hands On, purveyors of quality Midi sequences on disk, have released a new Summer catalogue. It contains around 130 pop, rock and classical pieces available in a choice of ST sequencer formats. You can select four pop songs of your choice or two classical pieces for only £19.95.

More from Hands On Midi Software, 14 Lodge Road, Bedhampton, Hampshire, PO9 3LL. Tel: 0705 452628.

The dialog box shows various options for bass patterns, including 'Bass Pattern Is Recorded' and 'Playback bar mask determines WHEN patterns played. B=anytime, 1=odd 2=even, 4=every 4th pat. etc.'

(R)ecord (P)lay pattern (FB)Chord (E)dit (Q)uantize (C)opy (V)Paste (F10)Exit  
Adding weights to a bass pattern in Band-In-A-Box

## Dis and DAT

I've been meaning to say a few words about DAT (Digital Audio Tape) for a while but the audio industry is still in something of a turmoil trying to decide what to do about it and which standard to go for.

DAT has been with us for a few years although it hasn't been widely publicised outside the audio industry. In effect, a DAT machine is like a miniature video recorder and DAT tapes are like mini video tapes.

A DAT player records audio data digitally, of course, and gives you CD quality recordings. Just to spell it out - a DAT copy of a CD is indistinguishable from the original CD recording. The DAT tape can be copied and so on, ad infinitum without any loss of quality.

Naturally, the industry is rather concerned about piracy. (And you think software publishers are neurotic? The pirate copying of records and CDs has been going on ever since the tape recorder was invented and the industry's still with us!)

In an attempt to overcome, or at least minimise, the effects of piracy, manufacturers began to incorporate SCMS (Serial Copy Management System) into DAT players. This allows you to make a recording on to DAT but not to make another digital recording from that one.

It doesn't prevent you from making an analogue copy, however, and few listeners will be able to tell the difference. For the legitimate user, SCMS should not be a problem.

The advantage of DAT for the sequencer user is that it allows you to make CD quality recordings of your music. You can copy your work on to cassette for distribution from a first generation digital master!

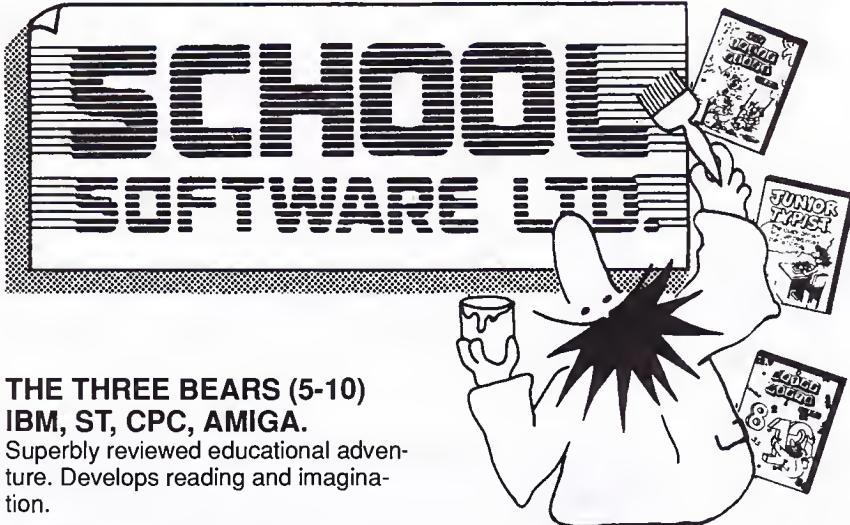
Many sequencers, such as Notator and Cubase, have a Mixer page which lets you perform a digital mix on the ST without having to work the faders on an analogue mixer manually. As the mix is recorded in the sequencer, it's easy to edit.

Another benefit for anyone making direct-to-disk recordings is the ability to back up data onto DAT. Because a D-T-D recording can use as much as 10 meg of disk space to record 30 seconds of music, DAT storage is a real money-saver. Some samplers can access data on DAT, too, and sample libraries are being sold on DAT tapes as well as CDs.

DAT has traditionally been aimed at the professional market but now manufacturers are seeking to increase consumer awareness of them. One of the best and cheapest low-cost DATs is Casio's DA-7 which you can now find in selected hi-fi dealers and music shops at prices of around £600 or less - typically £525. I liked it so much I bought one!

However, electronics giant Philips have thrown a spanner into the works by announcing a new digital audio tape format based on the humble cassette recorder. The most obvious benefit is the ability to play your existing tapes on it although the quality of the digital recordings isn't as high as DAT.

If the standard goes ahead it is unlikely to filter down to consumer level in less than a year, maybe two, but by that time DAT will have a very good foot in the professional door and, if Casio's lead is anything to go by, in home studios and by the hi-fi, too. However, we could be in for another VHS vs Betamax battle!



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**The really young ones receive some attention this month**

I've been looking at the range of software available for pre-school and "reception" children – aged two to five – and there's some pretty good stuff out there if you know where to look.

At this age the educational aspect of the software goes hand in hand with learning to

operate the computer, so simplicity of control is called for.

All of the games we are featuring this month combine operating skills with painless academic tutoring and all are recommended for even the youngest of children.

With the younger child an adult is required to talk the child through in the same way as reading a picture book. There's plenty to discuss and it's a lot better than leaving your child glued to the cartoons on television.

## THE WONDERFUL WORLD...

**For toddlers – and older children – there is nothing to beat Disney cartoons. But instead of leaving your child as a couch potato in front of the television, now you can get some interaction going and let the child control it.**

Three games are available, each suitable for ages two to six and covering language, numbers and shapes or colours. Goofy's Railway Express is the simplest of the three and presents a series of countryside scenes with a train puffing through them.

As the train puffs smoke a different coloured shape is puffed out too. If the child presses the spacebar the shape is transformed into an object which places itself in the scene, thus building up the detail.

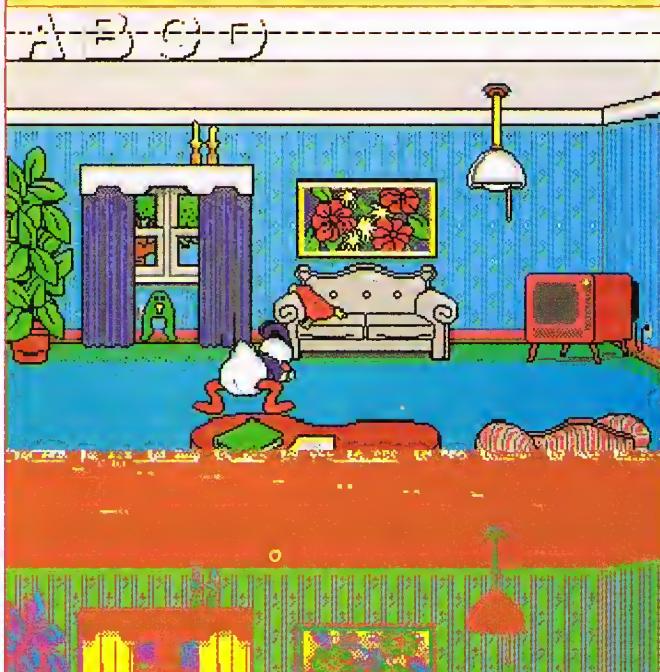
At stages on the journey the train passes stations where other Disney characters are waiting. Each character has a coloured shape associated with it and if the child matches that shape to one from the funnel, the character will be taken for a ride.

Donald's Alphabet Chase shows scenes inside Donald's house where various letters are hiding in disguise. As a letter appears the child must press the matching key to help Donald find and catch it. Accompanied by hilarious cartoon scenes this is the funniest game I've seen for years.

Mickey's Runaway Zoo is in a similar vein with escaped animals to be found and herded up by pressing the correct number. When the right number is found, the same number of animals marches back into custody. All three packages are very simple and repetitive – which is exactly what toddlers want.

**Products: Disney Games**

**Supplier:** Entertainment International,  
Unit 4 Stannetts, Laindon North Trade Centre,  
Laindon, Essex SS15 6DJ.  
**Telephone:** 0268 541212  
**Price:** £24.99 each



## SCHOOL CAN BE FUN?

No look at pre-school programs would be complete without a mention of Fun School which combines educational value with the fun and variety required to keep a child absorbed for hours.

The package consists of six different games covering counting, shape matching, letter recognition, word matching and action control. Also included is a colouring game in which a farmyard scene is painted in colours chosen by the child.

My six-year-old is still hooked on the package after months of play, although the tasks are rather easy for him now. But the animation, sound and sheer ease of use has him coming back to play over and over again.

Two other Fun School packs are available – five to seven and over sevens – and all are of the same high standard. The age ranges are fairly flexible as there is a good overlap in difficulty levels, thus providing extra value for families with several children.

**Product: Fun School 3 (Under 5)**

**Supplier:** Database (Europress Software), Triton House, Adlington Park, Macclesfield, SK10 4NP.  
**Telephone:** 0625 878888  
**Price:** £24.99



## All mixed up

For slightly older tots who are learning how to match shapes and colours, Mix and Match offers three very colourful exercises. Each consists of a set of four pictures and, depending upon the chosen option, the child must match one of the pictures to a separate display and either decide which of the four is different or remember the picture shown before.

Although very simple there is an element of reflex activity involved too and with sampled speech and simple controls – mainly the spacebar – the games can be operated by young children with little parental intervention.

Various degrees of difficulty can be set and the computer will vary the levels according to the child's results. The results can also be printed out.

Scetlander produce a wide range of educational programs, many of which are used in schools, and their valuable experience certainly shows in the quality of the software.

**Product: Mix & Match**

**Supplier:** Scetlander, 74 Victoria Crescent Road, Glasgow G12 9JN.  
**Telephone:** 041-357 1659  
**Price:** £24.99

## SPUD KIDS

While on the theme of matching shapes and colours, Kidpotato is a rendering of the classic activity where a child builds a potato into a little man by adding extras. This version – which is public domain – offers two options.

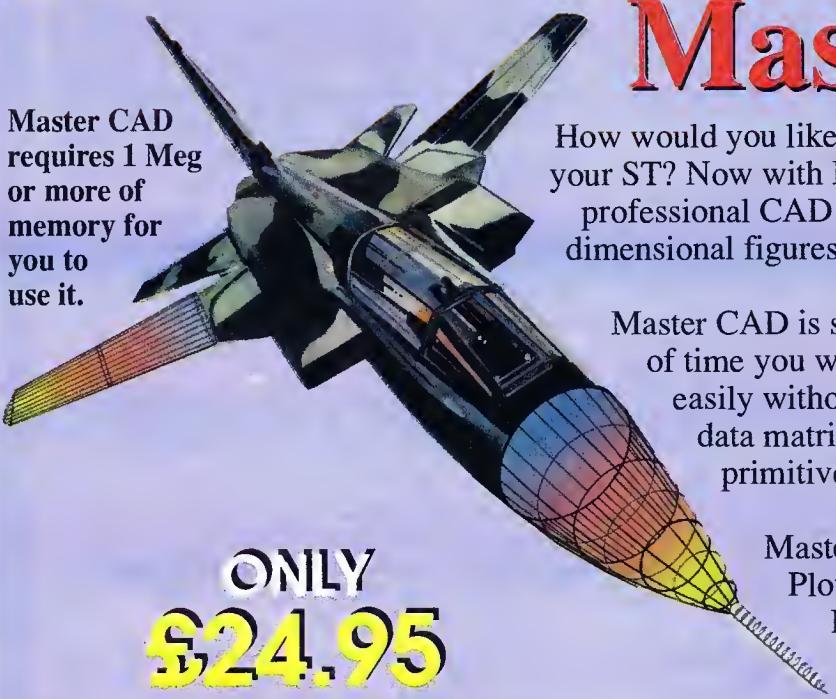
The first presents a blank potato then provides a selection of choices for each body part from which the child creates a character. The second option shows the child a ready-built character and asks for the child's potato to be dressed identically. Also on the disk is an etch-a-sketch style drawing program suitable for slightly older children.

**Product: Kidpotato**

**Supplier:** Goodmans PDL (disk GD802), 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent, ST13 1SW.  
**Telephone:** 0782 335650  
**Price:** £2.50

# Master CAD

Master CAD requires 1 Meg or more of memory for you to use it.



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Master CAD outputs to Hewlett Packard Plotters, HP COLOUR PRO, HP 7550, HP DRAFT PRO, Epson FX80 or Atari SLM804 Laser.

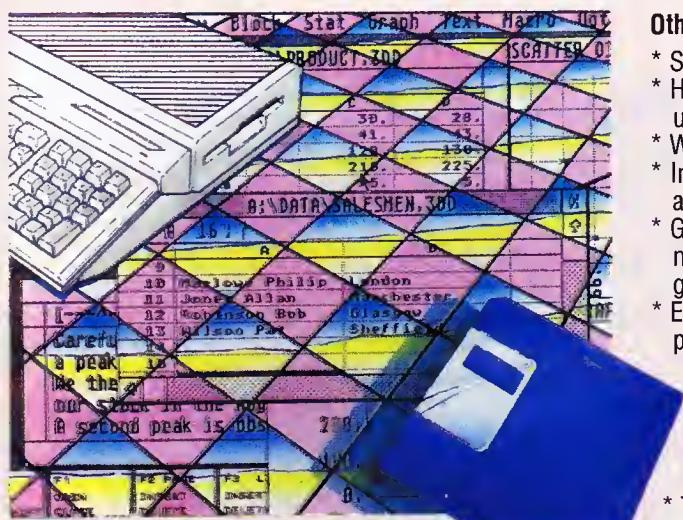
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## ATARI ST **3D - CALC** SPREADSHEET

If you need a spreadsheet for your ST, then you need 3D-Calc. This feature-packed program has everything the small business or home user is likely to need.

That includes its own integrated editor and programming language, graphics for chart production and extended statistical functions.

The full version requires 1 Meg of memory, but a reduced feature version included means you can also run 3D-Calc on a 520 ST with half a megabyte of memory.



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To order, turn to the Reader Offers order form on page 116 of this issue

**Eddie  
McKendrick  
takes a wander  
around British  
Telecom's  
bulletin board**

Imagine a bulletin board that is only a local number away and has callers spread out as far afield as a small croft in the Isle of Skye, and an even smaller bedsit in central London.

Throw in a good measure of Teletext-style graphics and you've pretty much summed up British Telecom's Micronet.

During Micronet's early days it was dominated by the anorak elite, but these days it's a very different story. The net is basically a huge collection of Teletext-style frames. At the last count there were more than

arteries and veins of the network. The built-in keyword facility provides a more friendly way to get to the most commonly accessed areas. For example, typing \*ST# while online takes you directly to the ST area of the Net.

But what about the quality of the information? Fortunately, most Micronet areas are well run; a large number of topics are updated daily with others typically being updated twice a week.

### QUALITY MATTERS

The information comes from a variety of sources. Micronet has a core editorial team which provides the main news and computer magazines, while external contributors provide news and features on special interest topics like hi-fi, music and television. There's even a special open access section of the

Think you can  
do better than  
the Micronet  
writers? Here's  
your chance

3 Gallery Editors' Index

00 Micronet

- What is  
Gallery all  
about?  
1 Exhibition -  
have a look  
the latest  
Galleries  
2 Book your  
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Frames

ment value – rather like the rest of his micromag.

16/32 is another ST-specific area of the Net which contains more general interest bits and bobs and another set of readers' letters. Software demons will doubtless be impressed by the ST telesoftware area. Here you can find recent PD and shareware releases ready for downloading.

### VIRUS KILLERS

One of the most interesting and valuable areas on Micronet is their special virus database. This contains everything you should know about viruses on your ST and how to get rid of

rather like a phone number, which other members can use to get in touch individually.

If meeting people for a chat is more your cup of tea, then it's probably worth taking a trip to Micronet's very own online "hotel" – Dialtalk. Up to 64 people can link up and exchange news interactively.

Dialtalk is different to the letters areas because it's a real-time environment. Other people using the service see what you're saying as you type it.

The "hotel" is divided up into a series of "rooms" which include a foyer, a bar and a noticeboard.

Micronet also has lots of free



Yet more  
ST-related  
information on  
the 'Net

30,000 pages, containing information on various topics from home computing to satellite TV.

The database is divided up into a series of mini-magazines which focus on a specific area of interest. By keying in a frame number you're presented with the relevant information.

The service is extremely well structured and it's possible to glean the information you want without ever keying a frame number directly. Instead, single or double digit selections can be made from intermediate menus which flow down different

database called Gallery which allows members to provide editorial on any topic they fancy.

Micronet caters for Atari ST owners in a number of ways. Firstly there is the ST micromag which includes daily letters and general interest editorial. One of the micromag's regular features is an in-depth review of Atari ST User each month.

Its editor, Ashley Cotter-Cairns, takes the mag to bits and glues it back together again in his own inimitable fashion. What Ashley lacks in accuracy he makes up for in entertain-



The ST micromag on Micronet edited by Ashley Cotter-Cairns

them. There is even virus killer software to download.

OK, so what makes Micronet different from Ceefax or Oracle? That can be defined in a word – interactivity.

In order to use the 'Net you must be physically linked to a central computer system. This has obvious pros and cons. On the up-side your two-way link means the system knows exactly who you are. Every Micronet member has a unique personal Mailbox number,

software on offer in the form of their telesoftware service. Using any 'Net-approved comms package, it is possible to download special pages of program data which are decoded into useable software.

### GET ONLINE!

Micronet is a subscription service available at local call rates costing around 74p an hour in addition to a quarterly subscription charge.

If you have a modem and viewdata comms software, call the Micronet free demo.

Set your modem to 7E1 (7 data bits, even parity, 1 stop bit), dial 0272 250000. Use the customer ID: 4444444444 and the password 4444.



The front  
page  
of British  
Telecom's  
Micronet

# ATARI ST USER

# Reader Offers

To order, please use the form on Page 116



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## Master Sound 2

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The supplied software provides complete control over the sampled sounds: Cut and paste them, flip and fade them and you're still only using a tiny fraction of the sound processing tools available.

Best of all, the comprehensive instructions will soon have you creating your own public domain demo disks complete with IFF picture files.

The perfect sound sampling package for beginners and experts alike.

Master Sound 2 is a complete hardware and software sampling system for only **£34.95** (RRP £39.95).

**"Is it real or is it Master Sound?"**

— Amiga Computing, May 1990

## HiSoft – Your 2nd Manual

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## *AT-Speed in go-faster stripes and a beginner's guide to the rudiments of Mac and PC emulation*

The quest for ever-faster PC emulation on the ST continues. The 386 emulator may still be on the drawing board, but in the 286 class the race continues between the two market leaders. AT-Speed and ATOnce have both recently introduced 16MHz versions of their gadgets to an increasingly breathless public – and somewhere out there is also a 286 SuperCharger.

I have only just received Compo's offering and cannot say that I notice a striking speed difference compared to the previous version in day-to-day use, but Compo's quoted Norton factor of 8.2 is somewhat niftier than the 6 or so of its predecessor. It also includes a socket for an 80C287 maths co-processor which should make some applications fly, relatively speaking.

Speed is in the eye of the beholder, I suppose, and in some situations – especially where graphics are involved – every little bit helps.

### DR WHO?

The really nice thing about AT-Speed C16, to give the board its full name, is that it comes with a complete operating system, DR Dos Version 5. DR stands for Digital Research, once famous for their CP/M operating system, and so miffed at being beaten by Microsoft for the IBM PC franchise that they set about writing a rival system. And very nice it is too. AT-Speed's arch rival

ATOnce also recommends DR Dos, but does not bundle it with the emulator, so one up for Compo here.

DR Dos is so much better than the familiar MSdos that even Microsoft have been forced to break with their complacency. The result is the much-heralded MSdos 5, which is currently dominating the glossy covers at the newsstands.

For a closer look at the two version fives, tune in to this column next month. In the meantime, if you need the extra speed and fancy a better Dos, give Compo a ring on 0480-891271.

### BEGINNER'S GUIDE

One of the great temptations to be resisted when writing a regular column such as this one is to assume that everybody has read every previous instalment and thus faithfully following me into the upper stratospheres of PC and Mac emulation.

In fact, I am struck by the number of requests I get to go back to fundamentals and enlighten those who are only just considering making their ST don the garb of those strange machines.

That's a good thing, I suppose, since it shows how well the ST continues to sell and that new users are being introduced to Atari computing all the time.

So, by popular request, here is a basic briefing in the black art of emulation. How does an ST manage to mimic a Mac or PC at all, given the considerable differences between them? Well, as far as the Mac is concerned, the differences are not that great.

Both use the same central processor chips, and emulating the Mac is therefore "merely" – apologies to Dave Small, inventor of the wonderful Spectre – a question of reconciling the



expectations of Mac software with the remaining architecture found in Atari's grey boxes.

This is what the emulating software does, whereas the Spectre cartridge is essentially the home for those parts of Apple's operating system that reside in ROM chips. In principle, the Mac could even be emulated in software only, but that would involve breaking Apple's copyright to the contents of the ROMs and thus would be very naughty, not to say illegal, indeed.

As to the PC, it being a somewhat jazzed-up relic of the 8-bit stone age of personal computing, built around various CPUs from the US firm Intel, it would again be possible to painstakingly translate every Intel instruction into its Motorola equivalent. It has been done, by the now legendary PC-DITTO – but all that interpreting slows down software emulation to a crawl.

So instead, emulator design has settled on using a genuine Intel chip or equivalent – NEC's V30 and Intel's own 286 being the most popular – running par-

allel to Atari's built-in one. This can be done either internally or externally. The former – PC/AT-Speed, ATOnce – is neat but can be difficult and invalidates any warranty on a new ST. The latter – SuperCharger – takes desk space but is more convenient.

Then, of course, you still need the operating system software before you can indulge in disguising your ST. The disk-bound parts of the Mac's system software have to be obtained from Apple dealers – notoriously snooty and unhelpful – or friendly Mac users.

### WITHIN THE LAW

The PC operating system must be bought if you want to stay on the right side of the law, unless, of course, it comes bundled with the emulator as is increasingly the fashion (see above). Only then will you be able to shove a genuine Mac or PC disk into your ST drive and run the famous software classics.

But what about disk formats? No problem in the case of PC software as long as the software comes on 720K, 3.5in disks, as it usually does since this format is popular on portable PCs. But the older, larger 5.25in disks and newer, high-density 3.5in format can be a hurdle.

With Mac emulation, the GCR version of Spectre can handle Mac disks, but again not the more recent high-density formats. In both cases, find a helpful friend or dealer willing to transfer the bytes onto ST-friendly floppies for you.

If all else fails, there are always modems and null modem cables, but that is hardly a suitable topic for beginners.

**Partitions:**

C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
D	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Assign DOS partition**

C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
D	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Assign Tos partition**

< >

OK

**Configuration of AT-Speed C16 is friendly and easy, but care must be taken over the assignment of Gem partitions to Dos: the Atari partition C should be avoided.**

**The Atari mouse becomes a Microsoft-compatible serial mouse, and any problems with the step-rate of older 5.25in drives – very useful peripherals**

**indeed for Dos emulation – are taken care of by the configuration program.**

**The emulator can also be installed as a desk accessory, so switching between Dos and the ST's native Tos is both quick and easy.**

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To order, turn to the Reader Offers order form on page 116 of this issue

**Ambushbug,  
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takes over the  
Adventures  
column. Today,  
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Tomorrow, who  
cares?**

The message came in the early hours of the morning: "Your mission, should you choose to take it, is to provide a regular adventure column for a magazine known as *Atari ST User*.

"The risks are great and the rewards few but at least you might get the chance to have your photo on the page, may the Lord Editor have pity on the readers. This message will self destruct in five seconds."

I replaced the phone and contemplated the instructions. The warm glow from the incendiary device therein concealed providing a handy counterpoint to the dark thoughts going through my mind: "What shall I write about? Where shall I get my ideas? How can I make the column worth reading? Who should I send the bill for a new phone to?"

It was time to hit the streets. A bit of mindless violence never did anybody any harm. Sucking on my poor bruised knuckles I man-

ged to find my way to TCM, fine purveyors of cheap computer software...including adventures.

Sneaking into the rear of the Jubilee Arcade on Gardner Street in Brighton I put the squeeze on the unfortunate sap behind the counter. He couldn't help. He claimed there was no pattern to the sort of person who buys adventure games.

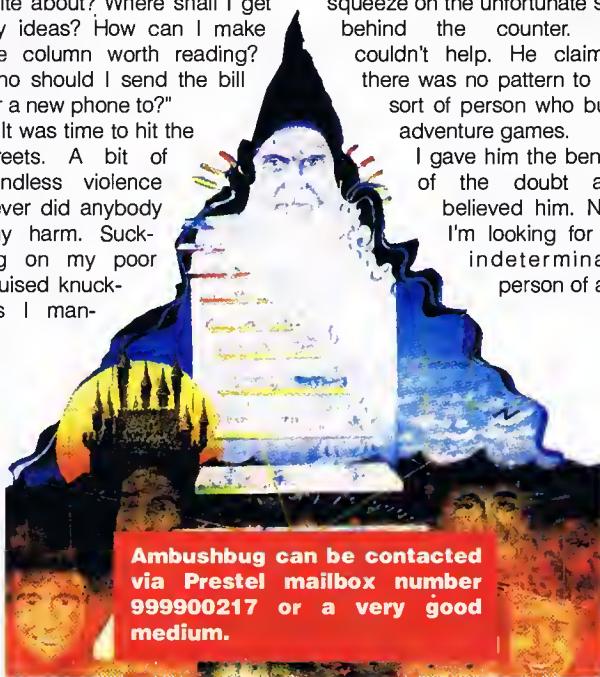
I gave him the benefit of the doubt and believed him. Now I'm looking for an indeterminate person of any

sex and any age. That narrows the field down somewhat.

Suddenly, a suspect emerged. Zarabeth: a housewife, mother of one and a half children and keen adventure fanatic. Sneaking into her confidence, disguised as a bowl of cheese and onion crisps, I interrogated the unsuspecting woman, she said: "I play adventure games because they provide an escape from reality into a fantasy world where I can hide from the boredom of everyday life.

"What I really like is the way you can sit down for just five minutes and when you next stand up it's three hours later." Now I know exactly who I'm dealing with. A fantasy seeking escapist with bad time sense. I've dealt with worse...but only just.

My job now? To provide you with the goods on the games. I'll put the word on the street that I'm looking for new games. If someone reads it I'll have the lowdown for you next month. Who am I? I'm Ambushbug...I play these games myself. I even wrote one once, but that's another story for another time.



No doubt you've played a text-only adventure – or at least seen one – and either love them or hate them. If you've never played a multi user game, however, you've never seen a text-only adventure at its best.

MUGs, as they are generally known, can only be played if you have access to a modem, or are lucky enough to be resident at a university with one running on the mainframe. You connect to the system, decide on a name by which you shall be known and enter the game.

What you see onscreen is a text description of the situation: where you are; what is happening, etc. At this point there is no visible difference between a MUG and a single user text-only adventure.

Indeed, you can play a MUG as if it was a single user game (SUG), but that is not where the strengths of a MUG lie. Let's face it. Text-only adventures are old hat these days and only the most die hard adventure fanatic prefers them to the superduper graphical games such as Dungeon Master and many others.

The one thing that a MUG can provide that no SUG will ever supply is the interaction. True, in a SUG you can meet interesting characters and talk with them, kill them, trade with them, but I've yet to see a SUG where you could ask a character what it thought of the football last night and get a sensible answer.

Here lies the main difference between a MUG and a SUG. While wandering through the landscape, finding items of treasure, solving puzzles or whatever you wish to be doing, you may come

## Muggers apply here

across characters who are not controlled by the game but by other people like yourself!

You could be sitting in your bedroom in Brighton, negotiating a maze in the mysterious land of Whatsit when suddenly somebody sat at their computer in Newcastle could appear, bash you round the head with the sharp implement of their choice and run off with your golden kebabs! If you give chase you may find yourself ambushed along the route by an armed gang, collaborating even though they're at opposite ends of the country.

For some indefinable reason, playing against, or with, other people provides a thrill that no computer could ever supply. You can fight with real people, or even make friends with them!

Many of the more popular MUGs have regular meetings where players get together to discuss great tales of heroism and bravado, and even greater tales of who drank the most at the last get together!

A good MUGs is also constantly evolving. Buy a SUG and you're stuck with what you've got. Play a MUG, however, and you'll find the game is constantly changing, new features, areas, commands, etc being added by the operator of the game. MUG operators usually listen carefully to suggestions made by the players, so you can even have a hand in the direction in which the game evolves!

Next month I'll look at a couple of MUGs in more detail. If you want to try a few straight away though you can try: SHADES and TRASH via Prestel and Micronet; and IOWA on direct dial 0883 744164 (local to London).

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25 Games 100 Micronet Net Demo 26

**Multi user games  
are constantly  
evolving. Try  
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14 Character Info  
21 Letters  
22 Hints and Tips  
24 Tip 10 Tax  
27 Write to Da Boss  
9 Shaders

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**Timeworks improvements likely soon for ST users, plus new clip art and a user group for DTP enthusiasts**

Over in the PC world GST has just released version 2 of Timeworks Publisher. The company is also on record as saying it is continuing to develop Timeworks "and other products for the ST market.

Assuming the ST version of Timeworks continues to parallel the PC product, what can we look forward to in Timeworks Publisher 2 ST?

The biggest improvement may be the ability to flow text directly around a graphic, rather than just around its frame. This is done by manually altering the outline of the frame to mimic the shape of the graphic. It's easy to use and very versatile.

Also on the improvements list may be a wider range of paper sizes, more text and graphics filters for loading alien formats and extensions to the keyboard short-cuts.

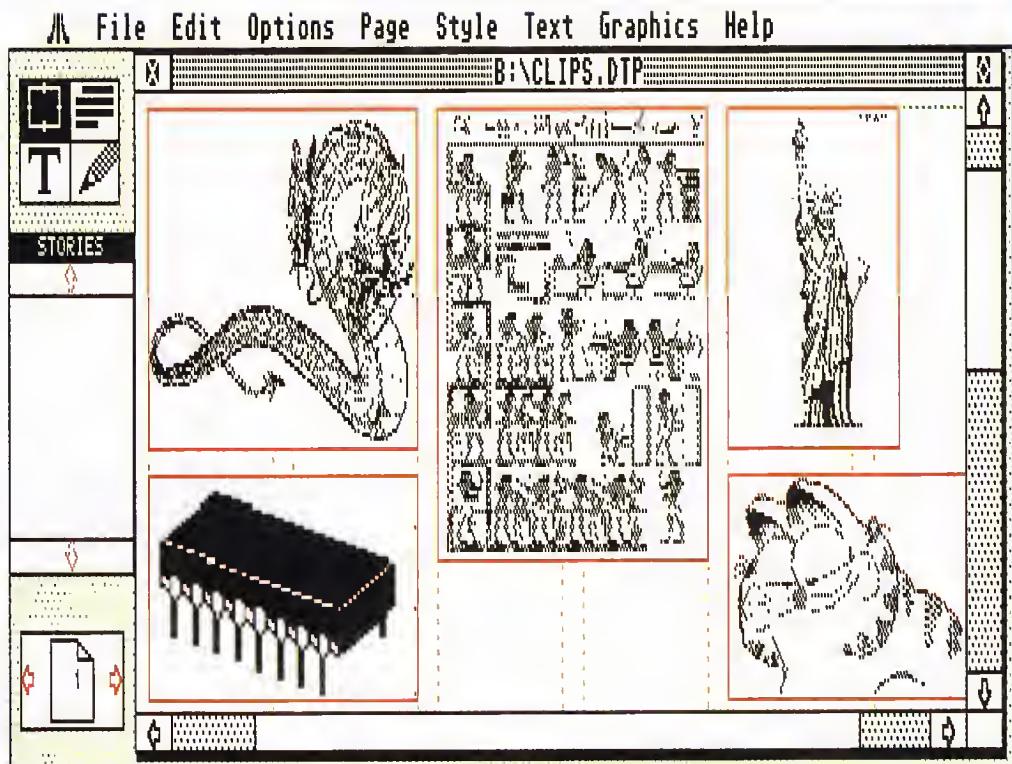
The range of embedded commands that can be typed into a wordprocessing text file and automatically actioned by Timeworks is also a feature of the new PC product. Ascii text can be exported too.

One area in which the ST version of Timeworks probably won't be able to mimic the PC version is the increased range of fonts. GST now bundles its bitmapped font generator, Typografica with the PC DTP, giving seven fonts in any size you might care to create.

Unless Atari's rumoured introduction of UltraScript as an extension to 'GDOS' comes about, it seems unlikely that GST could offer the same flexibility in font handling that it has introduced to Timeworks PC. With UltraScript, of course, the ST would yet again get one over the PC, as UltraScript fonts are scaleable "on-the-fly".

#### ENTER A FEW MORE CHARACTERS

The set of characters you can display and print depends very much on the DTP you use. The set of all upper and lower case letters, numbers and punctuation characters is common to all, of course, but the same is not true of characters not found on the keyboard. Those DTPs which



*Historical fact and fiction, both covered in Clip Art (PD)'s sampler*

come with their own fonts - Calamus and PageStream are prime examples - can use whatever character set they like. Sets compatible with HP and PostScript laser printers are common.

If you use a Gem-based program, like Timeworks Publisher ST, its character set is that provided by Digital Research for Gem. This set includes a mass of accented characters, European punctuation - such as the inverted question and exclamation marks - and a limited range of symbols, including those for registered design and trade mark.

Although the characters are there, there's no way of accessing them from within Timeworks as they can't be typed directly.

The program can display and print them, but only by importing them from another program which can generate them directly.

The easiest way to use these characters is to make up a short file of them, using another application which can generate them. You can then import them into a small frame within your working document in Timeworks where they can then be cut and pasted as needed.

Although this sounds cumbersome, you don't normally put a TM or cedilla in every sentence you write.

The cheapest way to generate a set of all the Gem characters is to buy a copy of the PD program STWriter, available for a couple of pounds, and edit a

copy of the text file STWCODES.TXT, which is a table of all the special characters (the Gem character set) which the program can produce.

#### MORE PD CLIP ART

Yet another set of clips arrived at STU Towers this month, this time from Clip Art (PD), of Blandford Forum. There are some good varied images here, complete with freeware cataloguing and viewer utilities.

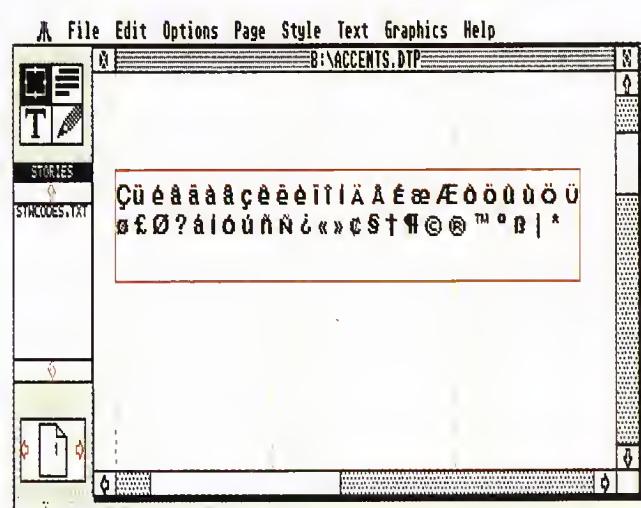
There's something awry with the viewer, though, as images come up double and with their colour bit-planes showing in medium-res mode. However the images themselves load into Timeworks in medium-res, and are obviously high quality clips.

If you want to know more, contact Clip Art (PD) at 8, College Road, Blandford Camp, Blandford Forum, Dorset DT11 8BE.

#### DTP USER GROUP

Dave Howell is embarking on a substantial task in starting a DTP user group for ST owners. Originally intended to cover Calamus, it has now been opened up to cater for all ST DTPs, as well as some half-breeds like Calligrapher.

Dave aims to put together his first newsletter around now and can be contacted after 6pm on (0922) 649410. If you'd rather write for details, address your letters to Flat 3, 68 Corporation Street West, Walsall, West Midlands WS1 3QR.



*A set of non-typeable characters for use in Timeworks*

# The ST Club

## FONTKIT PLUS 3

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## UNIVERSAL ITEM SELECTOR III

Powerful replacement for the Atari Item Selector. Universal Item Selector III incorporates a host of utility functions: format disks, copy, move and rename files and folders, create folders, find files, set file paths, etc. "You'll wonder how you ever lived without it," ST Format, December 1990. Price: £19.95.

## THE CATALOGUE

Our collection of PD and Shareware disks runs to over 2,000 disks and we guarantee same day dispatch on all orders. Our Free Catalogue - (46 pages A4) details these disks and all of our products and services: PD disks, Books, Budgie UK Licenseware and Laser Printing. We also publish: The Astronomy Lab (£19.95), Key Master (£6.95), Oxford Check (£9.95), Molgraph (£17.95), Guides to Timeworks DTP (£9.95) and 1st Word (£6.95), Fontpac Plus GEM and Signum fonts (from £6.95). Details of these will be found in our current catalogue. Write or telephone for your copy today.

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STUO?

## STRATEGY SOFTWARE

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## Doing strange things with spreadsheets, using PC files and saving tax

Ask the average executive of a large company what he does with his desktop computer and the chances are that using a spreadsheet will be near the top of the list. You may find that surprising, for at first sight spreadsheets appear pretty limited things – wonderful for doing lots of complicated sums and not much else.

In fact, a good spreadsheet is a very versatile implement indeed. I once worked with a guy who used his for absolutely everything – typing memos, preparing agendas for meetings, storing telephone and mailing lists. About the only thing he didn't use it for was complicated sums.

The versatility is a bit of an accident. The usual financial reporting application has row labels, such as "Sales", "Price" and "Revenue", column headings like "Jan", "Feb", "Mar", titles, footnotes and of course, the numbers and calculations.

To accommodate all of this,

any cell of a spreadsheet can hold numbers, text, or a formula. So, if you make the first column very wide, you have a crude text editor, or, if you head the columns "Name", "Address", "Telephone", etc, you have something that is starting to look very like a database, and you will probably be able to sort the records and search for a particular surname.

If you are lucky enough to own Kuma's K-Spread 3 or K-Spread 4, you can actually define a part of your spreadsheet as a database and then set up quite complex searches – for example, all males over 45, earning more than £20,000.

If you already have a spreadsheet package and know how it works, you can use it as a simple database without spending any money, or learning anything new. You may hit problems, however, if you need to store your data in several tables, or if the amount of data grows very large.

Spreadsheets tend to load all the data into memory at once, so your database size is limited by the amount of ram you have. A proper database package will only keep in memory the records it needs at any one time, so here the limiting factor is disk storage which, with a hard disk, can be upwards of 20Mb.

## Beat the taxman

Everyone would like to pay less tax, but there is a subtle difference between avoidance (which is legal) and evasion (which puts you in prison). As most people aren't tax experts and can't afford to employ one, they pay more tax than they need to, just to be on the safe side.

Digital International have sent me copies of correspondence from a very happy user of their Personal Tax Planner (PTP), who, having used it to check his tax affairs for the previous four years, received refunds amounting to just over £1,800. That's not a bad return for an outlay of £40.

Similar claims are made, of course, by tax guides in magazine, or book form, like the ones produced by *Which?* and *The Daily Telegraph*. The advantage of having PTP on your ST is that all the tedious calculations are done for you, and the program can give advice automatically, which you might miss if you had to wade through a book.

Also you can quickly try different strategies to see which gives the lowest liability. No one can guarantee that using PTP will reduce your tax bill, but if you suspect you are giving too much of your money to Mr Lamont, PTP must be worth a try.

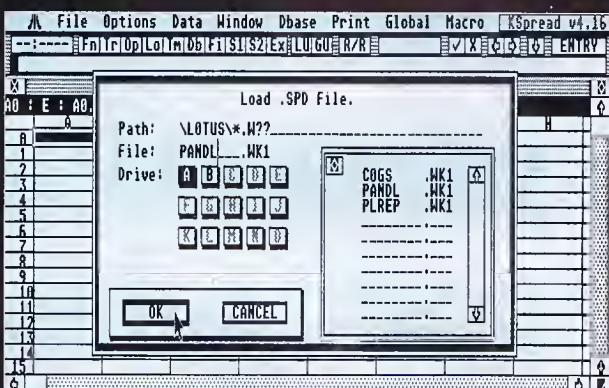
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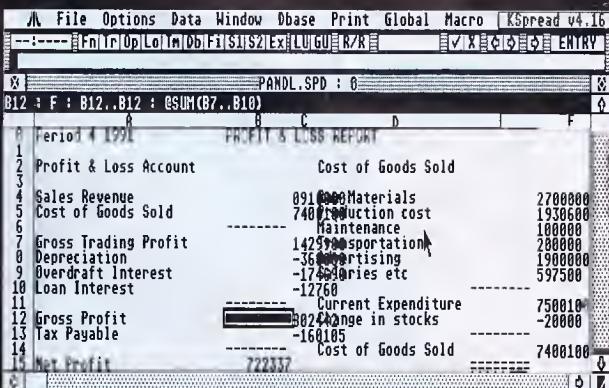
## The Lotus position

One of the industry standard file formats for transferring data between packages is the Lotus 1-2-3 work file format, or .WK1 file. So how easy is it to take a data file created on a PC in 1-2-3 and use it on an ST?

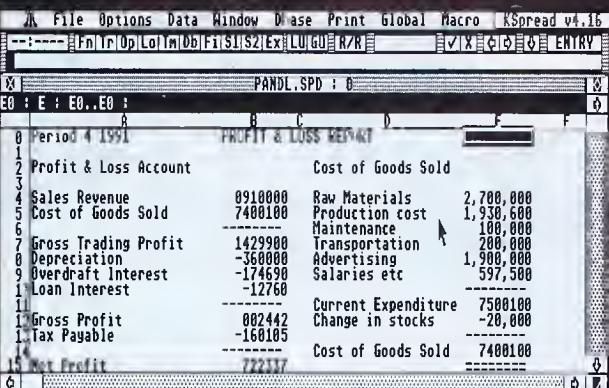
I decided to try the .WK1 import facility in K-Spread 4, and found it quick and easy, with only a minor hiccup.



I selected TAKE from the File menu, which brings up the import selector. You can import DIF, Lotus and Ascii files, and having chosen Lotus, I came to the file selector. Finding my WK1 files was easy



A brief moment of panic, because something seems to have gone horribly wrong with column B



Panic over! The problem seems to be caused by setting the spreadsheet window to full screen before the import. Resizing the window puts everything back in its right place.

The spreadsheet has arrived complete with numbers, labels, titles and formulae, ready to carry on working straight away. In fact, you'd hardly know the difference – except that K-Spread is a lot easier to use!

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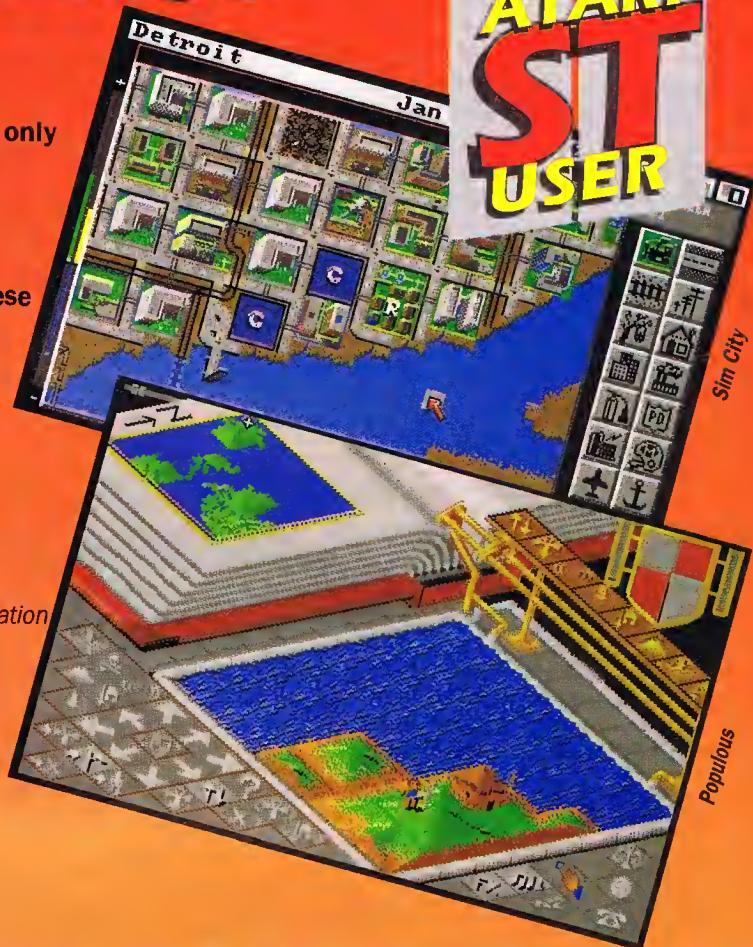
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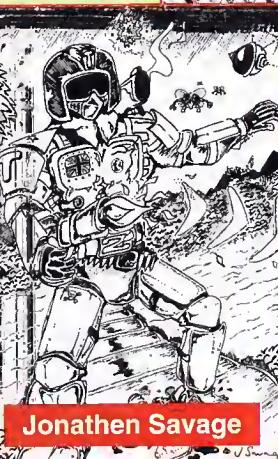
Are you a winner? In June's competition we asked you to draw a picture of Turrican blasting his way through hordes of alien bad guys. The mailbag was packed with entries and we were so impressed with the entries that we are going to publish some of them in month's section.

But first, did you win? Winning a copy of Turrican and a bag of Rainbow Arts goodies including T shirts, mugs and posters in first place was:

**Phiz Colling-Blackman  
of Hadleigh, Ipswich.**

And the 14 runners up winning a copy of the game are: Jamie Axton, Gosport, Hampshire: Kim Blackburn, Bradford: Carl Briggs, Nuneaton, Warwickshire: Paul Burgess, Great Yarmouth, Norfolk: Marco Cuomo, Chigwell Row, Essex: Aiden Dalglish, Reading, Berkshire: Warwick Ludinski, Henley-on-Thames, Oxfordshire: Alastair Logan, Sandy, Bedfordshire: Vincent Miller, Wisbech, Cambridgeshire: Darren Rowlands, RAF Valley, Gwynedd: Sean Robertson, Greenwich, London: Jonathon Savage, Felixstowe, Essex: Satpal Sangha, Southall, Middlesex: Kevin Wilcox, Yate, Avon

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## ProFlight 1.2

We are pleased to announce the release of version 1.2 of ProFlight, our immensely popular Tornado flight simulator, loved by alike.



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For those not in the know, HighSpeed Pascal comes from Denmark, is extremely fast and friendly to use and is very closely compatible to the immensely popular Turbo Pascal on the PC, even including the graphics unit from the PC.

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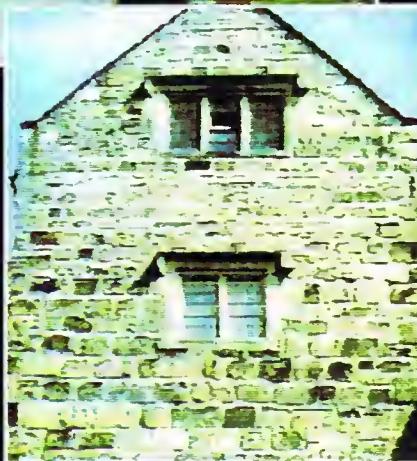
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